

2nd net

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Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626GMS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 DEC 18 CA/CAPLUS pre-1967 chemical substance index entries enhanced
with preparation role
NEWS 4 DEC 18 CA/CAPLUS patent kind codes updated
NEWS 5 DEC 18 MARPAT to CA/CAPLUS accession number crossover limit increased
to 50,000
NEWS 6 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 7 DEC 27 CA/CAPLUS enhanced with more pre-1907 records
NEWS 8 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 9 JAN 16 CA/CAPLUS Company Name Thesaurus enhanced and reloaded
NEWS 10 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 11 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 12 JAN 22 CA/CAPLUS updated with revised CAS roles
NEWS 13 JAN 22 CA/CAPLUS enhanced with patent applications from India
NEWS 14 JAN 29 PHAR reloaded with new search and display fields
NEWS 15 JAN 29 CAS Registry Number crossover limit increased to 300,000 in
multiple databases
NEWS 16 FEB 15 PATDPASPC enhanced with Drug Approval numbers
NEWS 17 FEB 15 RUSSIAPAT enhanced with pre-1994 records
NEWS 18 FEB 23 KOREAPAT enhanced with IPC 8 features and functionality
NEWS 19 FEB 26 MEDLINE reloaded with enhancements
NEWS 20 FEB 26 EMBASE enhanced with Clinical Trial Number field
NEWS 21 FEB 26 TOXCENTER enhanced with reloaded MEDLINE
NEWS 22 FEB 26 IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 23 FEB 26 CAS Registry Number crossover limit increased from 10,000
to 300,000 in multiple databases
NEWS 24 MAR 15 WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 25 MAR 16 CASREACT coverage extended
NEWS 26 MAR 20 MARPAT now updated daily
NEWS 27 MAR 22 LWPI reloaded
NEWS 28 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 29 MAR 30 INPADOCDB will replace INPADOC on STN
NEWS 30 APR 02 JICST-EPLUS removed from database clusters and STN

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available

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Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:33:24 ON 15 APR 2007

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 12:33:47 ON 15 APR 2007

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 APR 2007 HIGHEST RN 930268-90-9
DICTIONARY FILE UPDATES: 13 APR 2007 HIGHEST RN 930268-90-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

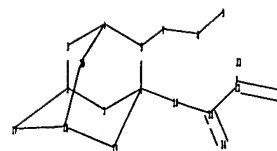
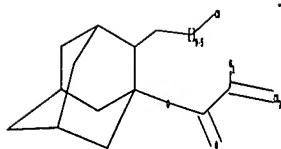
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10525429.str



chain nodes :
 7 8 9 10 11 12 13 14 23
 ring nodes :
 1 2 3 4 5 6 17 18 19 20
 chain bonds :
 5-7 6-10 7-8 8-9 10-11 11-12 11-14 12-13 12-23
 ring bonds :
 1-2 1-6 2-3 2-17 3-4 4-5 4-20 5-6 6-19 17-18 18-19 18-20
 exact/norm bonds :
 6-10 10-11 11-14 12-23
 exact bonds :
 1-2 1-6 2-3 2-17 3-4 4-5 4-20 5-6 5-7 6-19 7-8 8-9 11-12 12-13 17-18
 18-19 18-20
 isolated ring systems :
 containing 1 :

G1:H,CH3,CF3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
 11:CLASS 12:CLASS 13:CLASS 14:CLASS 17:Atom 18:Atom 19:Atom 20:Atom
 23:CLASS

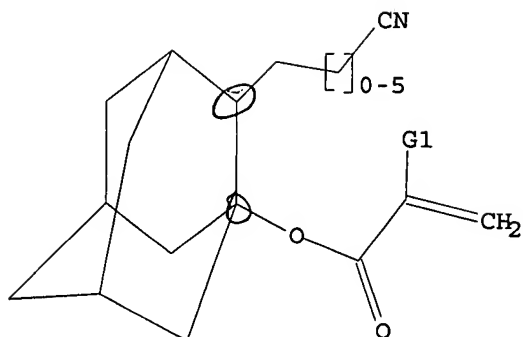
L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR

10525429.trn



G1 H, Me, CF₃

Structure attributes must be viewed using STN Express query preparation.

=> S L1

SAMPLE SEARCH INITIATED 12:34:04 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED

0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> S L1 SSS FULL

FULL SEARCH INITIATED 12:34:11 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 7 TO ITERATE

100.0% PROCESSED

7 ITERATIONS

~~0 ANSWERS~~

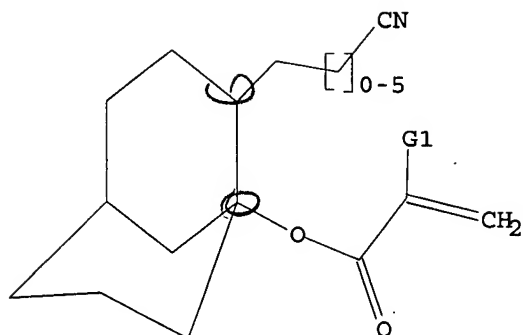
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=>

Uploading C:\Program Files\Stnexp\Queries\10525429a.str

10525429.trn



G1 H, Me, CF₃

Structure attributes must be viewed using STN Express query preparation.

=> s l4

SAMPLE SEARCH INITIATED 12:35:37 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s l4 sss full

FULL SEARCH INITIATED 12:35:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

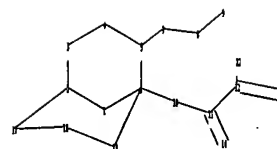
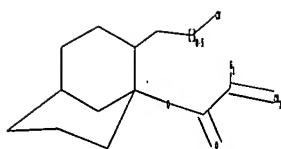
SEARCH TIME: 00.00.01

L6 0 SEA SSS FUL L4

=>

Uploading C:\Program Files\Stnexp\Queries\10525429b.str

0 ANSWERS



chain nodes :

7 8 9 10 11 12 13 14 22

ring nodes :

1 2 3 4 5 6 17 18 19

chain bonds :

5-7 6-10 7-8 8-9 10-11 11-12 11-14 12-13 12-22

ring bonds :

1-2 1-6 2-3 2-17 3-4 4-5 5-6 6-19 17-18 18-19

exact/norm bonds :

6-10 10-11 11-14 12-22

exact bonds :

1-2 1-6 2-3 2-17 3-4 4-5 5-6 5-7 6-19 7-8 8-9 11-12 12-13 17-18 18-19

isolated ring systems :

containing 1 :

G1:H,CH3,CF3

Match level :

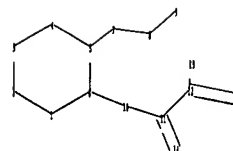
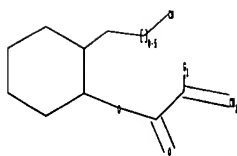
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 17:Atom 18:Atom 19:Atom 22:CLASS

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR



chain nodes :
 7 8 9 10 11 12 13 14 19
 ring nodes :
 1 2 3 4 5 6
 chain bonds :
 5-7 6-10 7-8 8-9 10-11 11-12 11-14 12-13 12-19
 ring bonds :
 1-2 1-6 2-3 3-4 4-5 5-6
 exact/norm bonds :
 6-10 10-11 11-14 12-19
 exact bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 5-7 7-8 8-9 11-12 12-13
 isolated ring systems :
 containing 1 :

G1:H,CH3,CF3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
 11:CLASS 12:CLASS 13:CLASS 14:CLASS 19:CLASS

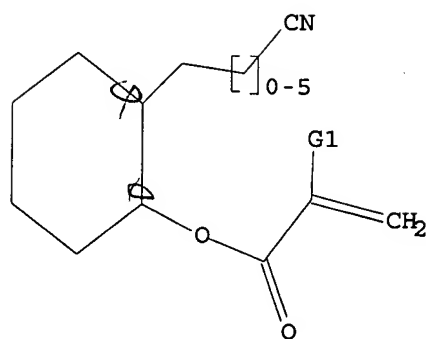
L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR

10525429.trn



G1 H, Me, CF3

Structure attributes must be viewed using STN Express query preparation.

=> s l7

SAMPLE SEARCH INITIATED 12:36:51 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0
PROJECTED ANSWERS: 0 TO 0

L8 0 SEA SSS SAM L7

=> s l7 sss full

FULL SEARCH INITIATED 12:36:58 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 31 TO ITERATE

100.0% PROCESSED 31 ITERATIONS
SEARCH TIME: 00.00.01

7 ANSWERS

L9 7 SEA SSS FUL L7

=> FIL HCAPLUS

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
517.20	517.41

FULL ESTIMATED COST

FILE 'HCAPLUS' ENTERED AT 12:37:03 ON 15 APR 2007

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FILE COVERS 1907 - 15 Apr 2007 VOL 146 ISS 17
FILE LAST UPDATED: 13 Apr 2007 (20070413/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l9

L10 1 L9

=> d l10 ibib abs hitstr tot

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:813992 HCAPLUS

DOCUMENT NUMBER: 132:71366

TITLE: Chemically amplified resist materials and formation of resist patterns thereof

INVENTOR(S): Takechi, Satoshi

PATENT ASSIGNEE(S): Fujitsu Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11352694	A	19991224	JP 1998-162398	19980610
PRIORITY APPLN. INFO.:			JP 1998-162398	19980610

AB The resist materials used in the pattern-forming process contain (a) acid-responsive polymers having alkali-soluble groups bearing protection groups containing ≥ 1 self-releasing nitrile group-containing sites, which become soluble in alkalis by releasing the alkaline-soluble groups by using acids,

and (B) acid generators which generates acids by radiation irradiation The resist material have improved adhesion without sacrificing their dry etching resistance and sensitivity and are especially suitable for semiconductor

device manufacture

IT 253179-99-6P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);

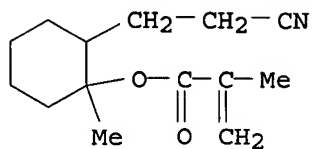
RACT (Reactant or reagent)

(chemical amplified resist materials containing acid-responsive polymers with

nitrile-containing protection groups and their pattern formation)

RN 253179-99-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-cyanoethyl)-1-methylcyclohexyl ester (9CI) (CA INDEX NAME)



IT 253180-00-6P 253180-02-8P 253180-03-9P

253180-04-0P 253180-06-2P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified resist materials containing acid-responsive polymers with nitrile-containing protection groups and their pattern formation)

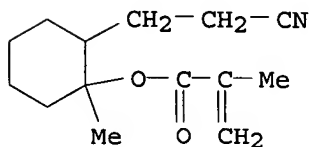
RN 253180-00-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-cyanoethyl)-1-methylcyclohexyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 253179-99-6

CMF C14 H21 N O2



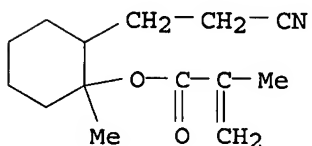
RN 253180-02-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-cyanoethyl)-1-methylcyclohexyl ester, polymer with 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 253179-99-6

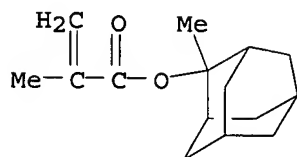
CMF C14 H21 N O2



CM 2

CRN 177080-67-0

CMF C15 H22 O2



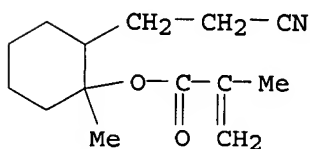
RN 253180-03-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-cyanoethyl)-1-methylcyclohexyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4-hydroxy-4-methyl-2H-pyran-2-one (9CI) (CA INDEX NAME)

CM 1

CRN 253179-99-6

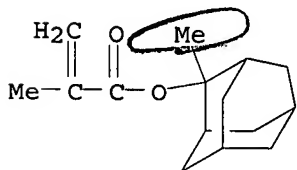
CMF C14 H21 N O2



CM 2

CRN 177080-67-0

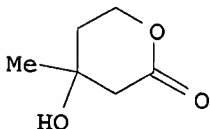
CMF C15 H22 O2



CM 3

CRN 674-26-0

CMF C6 H10 O3



RN 253180-04-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-cyanoethyl)-1-methylcyclohexyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

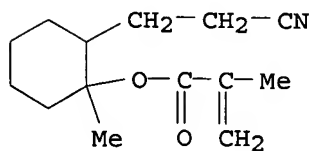
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NAME)

CM 1

CRN 253179-99-6

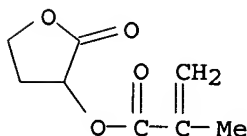
CMF C14 H21 N O2



CM 2

CRN 195000-66-9

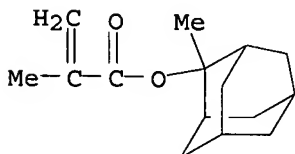
CMF C8 H10 O4



CM 3

CRN 177080-67-0

CMF C15 H22 O2



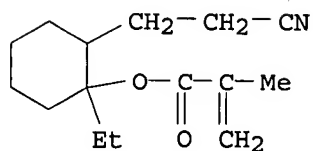
RN 253180-06-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-cyanoethyl)-1-ethylcyclohexyl ester, polymer with 2-(2-cyanoethyl)-1-methylcyclohexyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 253180-05-1

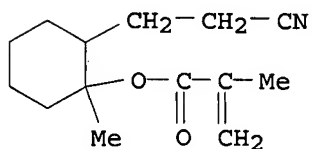
CMF C15 H23 N O2



CM 2

CRN 253179-99-6

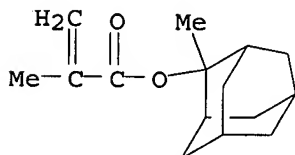
CMF C14 H21 N O2



CM 3

CRN 177080-67-0

CMF C15 H22 O2



=> s adamantane

7250 ADAMANTANE

1119 ADAMANTANES

L11

7541 ADAMANTANE

(ADAMANTANE OR ADAMANTANES)

=> s l11 and cyano

82624 CYANO

3 CYANOS

82625 CYANO

(CYANO OR CYANOS)

L12

111 L11 AND CYANO

=> s l12 and process

2409591 PROCESS

1638936 PROCESSES

3596091 PROCESS

(PROCESS OR PROCESSES)

L13

9 L12 AND PROCESS

=> d l13 ibib abs hitstr tot

L13 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1320912 HCAPLUS

DOCUMENT NUMBER: 146:229124

TITLE: Direct Cyanation of Heteroaromatic Compounds Mediated by Hypervalent Iodine(III) Reagents: In Situ Generation of PhI(III)-CN Species and Their Cyano Transfer

AUTHOR(S): Dohi, Toshifumi; Morimoto, Koji; Takenaga, Naoko; Goto, Akihiro; Maruyama, Akinobu; Kiyono, Yorito; Tohma, Hirofumi; Kita, Yasuyuki

CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Osaka University, 1-6 Yamada-oka, Suita, Osaka, 565-0871, Japan

SOURCE: Journal of Organic Chemistry (2007), 72(1), 109-116
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hypervalent iodine(III) reagents mediate the direct cyanating reaction of a wide range of electron-rich heteroarom. compds. such as pyrroles, thiophenes, and indoles under mild conditions (ambient temperature), without the

need for any prefunctionalization. Com. available trimethylsilyl cyanide is usable as a stable and effective cyanide source, and the reaction proceeds in a homogeneous system. The N-substituent of pyrroles is crucial to avoid the undesired oxidative bipyrrrole coupling process, and thus a cyano group was introduced selectively at the 2-position of N-tosylpyrroles in good yields using the combination of phenyliodine bis(trifluoroacetate) (PIFA), TMSCN, and BF₃·Et₂O at room temperature. In the reaction mechanism, cation radical intermediates of heteroarom. compds. are involved as a result of single electron oxidation, and the key to successful transformations seems to depend on the oxidation potential of the substrates used. Thus, the reaction was also successfully extended to other heteroarom. compds. having oxidation potentials similar to that of N-tosylpyrroles such as thiophenes and indoles. However, regioisomeric mixts. of the products derived from the reaction at the 2- and 3-positions were obtained in the case of N-tosylindole. Further investigation provided insights into the real active iodine(III) species during the reaction; the reaction is induced by an active hypervalent iodine(III) species having a cyano ligand in situ generated by ligand exchange reaction at the iodine(III) center between trifluoroacetoxy group in PIFA and TMSCN, and effective cyanide introduction into heteroarom. compds. is achieved by means of the high cyano transfer ability of the hypervalent iodine(III)-cyano intermediates. In fact, the reaction of N-tosylpyrrole with a hypervalent iodine(III)-cyano compound (e.g., (dicyano)iodobenzene), in the absence of TMSCN, took place to afford the 2-cyanated product in good yield, and an effective preparation of the intermediates is of importance for successful transformation. 1,3,5,7-Tetrakis[4-{bis(trifluoroacetoxy)iodo}phenyl]adamantane, a recyclable hypervalent iodine(III) reagent, was also comparable in the cyanating reactions as a valuable alternative to PIFA, affording a high yield of the heteroarom. cyanide by facilitating isolation of the cyanated products with a simple workup. Accordingly, after preparing the active hypervalent iodine(III)-CN species by premixing of a recyclable reagent, TMSCN, and BF₃·Et₂O for 30 min in dichloromethane, reaction of a variety of pyrroles and thiophenes provided the desired cyanated products and in high yields. 1,3,5,7-Tetrakis[4-iodophenyl]adamantane, recovered by filtration after replacement of the reaction solvent to MeOH,

could be reused without any loss of activity (the oxidant can be obtained nearly quant. by reoxidn. using m-CPBA).

REFERENCE COUNT: 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:672357 HCAPLUS

DOCUMENT NUMBER: 145:300225

TITLE: Dynamics of cyanoadamantane molecules confined in the space between carbon nanotubes: MD study

AUTHOR(S): Brol, P.; Palucha, S.; Gburski, Z.

CORPORATE SOURCE: Institute of Physics, Silesian University, Katowice, 40-007, Pol.

SOURCE: Journal of Molecular Structure (2006), 792-793, 182-185

CODEN: JMOSB4; ISSN: 0022-2860

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Results of mol. dynamics (MD) simulation are presented for cyanoadamantane mols. embedded in the space between two surfaces composed of single-wall nanotubes. The dynamics of the simulated system has been investigated by inspecting plots of the translational velocity autocorrelation functions. The temperature dependences of order parameter, total dipole moment and rotational autocorrelation functions have been analyzed as indicators of phase transitions.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:58257 HCAPLUS

DOCUMENT NUMBER: 144:212384

TITLE: The structure, photochemical reactivity, and photophysical properties of adamantyl X-substituted aryl ethers and a comparison with the alkyl groups, methyl, tert-butyl, and allyl

AUTHOR(S): Pincock, A. L.; Pincock, J. A.

CORPORATE SOURCE: Department of Chemistry, Dalhousie University, Halifax, NS, B3H 4J3, Can.

SOURCE: Canadian Journal of Chemistry (2005), 83(9), 1237-1252

CODEN: CJCHAG; ISSN: 0008-4042

PUBLISHER: National Research Council of Canada

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The structure, photophys. properties, and photochem. of the adamantyl aryl ethers 1 in both methanol and cyclohexane have been examined UV absorption spectra, ¹³C NMR chemical shifts, X-ray structures, and Gaussian calcns. (B3LYP/6-31G(d)) indicate that these ethers adopt a 90° conformer in the ground state. In contrast, fluorescence spectra, excited singlet state lifetimes, and calcns. (TDDFT) indicated a 0° conformer is preferred in the first excited singlet state S1. Irradiation in either solvent results in the formation of adamantane and the corresponding phenol as the major products, both derived from radical intermediates generated by homolytic cleavage of the ether bond. The 4-cyano substituted ether 1j was the only one to form the ion-derived product, 1-methoxyadamantane (16% yield), on irradiation in methanol. Rate consts. of bond cleavage for these ethers from S1 were estimated by two different methods by comparison with the unreactive anisoles 2, but the effect of substituents was too small to determine structure-reactivity correlations. The temperature dependence of the quantum

yields of the fluorescence of the unsubstituted, 4-methoxy and 4-cyano derivs. of 1 and 2 were also determined These results indicated that the activated process for 1 was mainly bond cleavage for the 4-cyano substrate whereas for 2, it was internal conversion and intersystem crossing.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:902345 HCAPLUS

DOCUMENT NUMBER: 141:379799

TITLE: A process for preparation of N-substituted 2-cyanopyrrolidine derivatives, useful as dipeptidyl peptidase-4 (DPP-4) inhibitors

INVENTOR(S): Schaefer, Frank; Sedelmeier, Gottfried

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

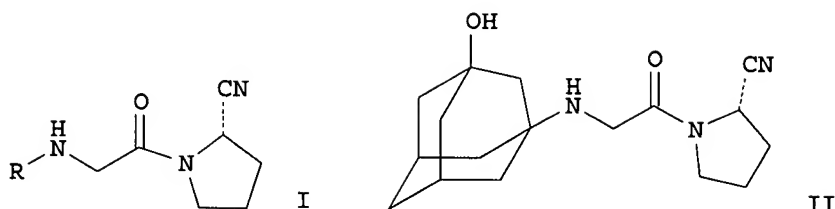
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092127	A1	20041028	WO 2004-EP3980	20040415
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004230245	A1	20041028	AU 2004-230245	20040415
CA 2520128	A1	20041028	CA 2004-2520128	20040415
EP 1620396	A1	20060201	EP 2004-727557	20040415
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004009471	A	20060502	BR 2004-9471	20040415
CN 1774420	A	20060517	CN 2004-80010135	20040415
JP 2006523645	T	20061019	JP 2006-505132	20040415
US 2006199854	A1	20060907	US 2005-552835	20051013
NO 2005005226	A	20051107	NO 2005-5226	20051107
PRIORITY APPLN. INFO.:			GB 2003-8854	A 20030416
			GB 2003-11836	A 20030522
			WO 2004-EP3980	W 20040415

OTHER SOURCE(S): MARPAT 141:379799

GI



AB The invention relates to a process for preparation of a N-substituted 2-cyanopyrrolidine derivs. of formula I [R = R₁R₂N(CH₂)₂₋₃; R₁ is a pyridinyl or pyrimidinyl moiety optionally mono- or disubstituted with alkyl, halogen, CF₃, etc.; R₂ is H or alkyl], useful as dipeptidyl peptidase-4 (DPP-4) inhibitors (no biol. data). The title compds. were prepared from X₁CH₂C(O)X₂ [X₁ is halogen; X₂ is halogen or OH], L-prolinamide, and amine. For instance, 2-cyanopyrrolidine derivative II was prepared via amidation of chloroacetyl chloride by L-prolinamide and amination of the obtained (S)-1-(chloroacetyl)pyrrolidine-2-carbonitrile by 3-hydroxy-1-aminoadamantane (example 1, no yield data).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:536550 HCAPLUS

DOCUMENT NUMBER: 133:255701

TITLE: Dynamics NMR investigations of a glassy crystal confined in porous materials

AUTHOR(S): Decressain, R.; Cochin, E.; Carpentier, L.

CORPORATE SOURCE: Laboratoire de Dynamique et Structures des Materiaux Moleculaires, UPRESA 8024 du CNRS, Universite de Lille 1, Villeneuve-d'Ascq, 59655, Fr.

SOURCE: Journal de Physique IV: Proceedings (2000), 10(Pr7, International Workshop on Dynamics in Confinement, 2000), Pr7/299-Pr7/303

CODEN: JPICEI; ISSN: 1155-4339

PUBLISHER: EDP Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The temperature dependence of the proton relaxation rates has been studied in mol. glassy crystals cyano-adamantane (C₁₀H₁₅CN) confined in the porous space of a silica glass of 60 Å and 150 Å nominal pore sizes. In the temperature range corresponding to the bulk plastic phase, the NMR proton lineshape of the confined materials revealed a two phase system consisting of a liquid-like component and a crystalline solid bulk-like component. As for the bulk, the α process, related to the dipolar axis motion, controlled both T_{1ρ} and T_{1ρ} in the largest pores. From the NMR results we concluded that the dynamics of this α-relaxation process is slightly enhanced by the confinement giving rise to a neg. shift of the glass transition temperature. On the contrary, the confinement has no influence on the relaxation rates in the glassy state.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:410766 HCAPLUS



DOCUMENT NUMBER: 131:185032

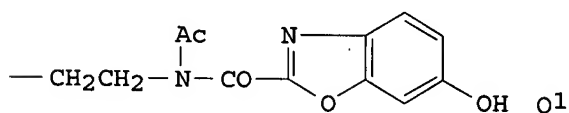
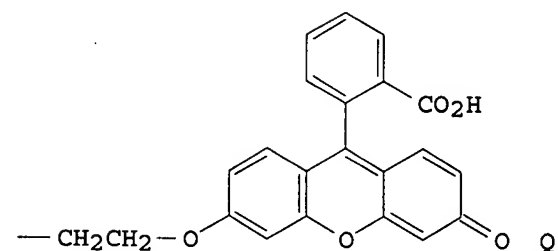
TITLE: Fluorous Tin Hydrides: A New Family of Reagents for

AUTHOR(S): Use and Reuse in Radical Reactions
 Curran, Dennis P.; Hadida, Sabine; Kim, Sun-Young;
 Luo, Zhiyong
 CORPORATE SOURCE: Department of Chemistry and Center for Combinatorial
 Chemist, University of Pittsburgh, Pittsburgh, PA,
 15260, USA
 SOURCE: Journal of the American Chemical Society (1999),
 121(28), 6607-6615
 CODEN: JACSAT; ISSN: 0002-7863
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 131:185032
 AB Eight members of a new family of highly fluorinated (fluororous) tin
 hydrides have been synthesized and studied as reagents for radical
 reactions. Tin hydrides of the general formulas $[Rf(CH_2)_n]_3SnH$ and
 $[Rf(CH_2)_n]Me_2SnH$ ($Rf = C_4F_9, C_6F_{13}, C_8F_{17}, C_{10}F_{21}; n = 2, 3$) were prepared
 These reagents are highly soluble in fluorinated solvents, and partition
 coeffs. between perfluorohexanes and several organic solvents have been
 measured. The reagents are generally useful for reductive radical
 reactions and hydrostannation reactions that would typically be conducted
 with tributyltin hydride. Stoichiometric and catalytic procedures have
 been developed, and both feature very easy separation of the tin products from
 the organic products by convenient liquid-liquid or solid-liquid extns. The
 tin reagents are recovered from reactions in high yields and are routinely
 reused. Rate constant measurements suggest that the fluororous tin hydrides
 are about as reactive as (or in some cases, slightly more reactive than)
 tributyltin hydride. The reagents show excellent potential for
 large-scale application in "green" (environmentally friendly)
 processes. In addition, they are useful for combinatorial and
 parallel synthesis applications both as reagents and as scavengers in
 phase-switching procedures.
 REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:408774 HCAPLUS
 DOCUMENT NUMBER: 115:8774
 TITLE: Preparation of thermally stable spiro[1,2-dioxetane-
 3,2'-adamantane] derivatives with tethered
 fluorencers for enhanced chemiluminescence through
 energy transfer
 INVENTOR(S): Akhavan-Tafti, Hashem; Schaap, Arthur P.
 PATENT ASSIGNEE(S): Wayne State University, USA
 SOURCE: Can. Pat. Appl., 80 pp.
 CODEN: CPXXEB
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 7
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2006222	A1	19900627	CA 1989-2006222	19891220
CA 2006222	C	20010703		
US 5616729	A	19970401	US 1988-289837	19881227
IN 176657	A1	19960817	IN 1993-MA457	19930706
PRIORITY APPLN. INFO.:			US 1988-289837	A 19881227
			US 1986-887139	A2 19860717



L13. ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:60417 HCAPLUS
DOCUMENT NUMBER: 104:60417
TITLE: Molecular relaxations in a rigid molecular glassy crystal
AUTHOR(S): Pathmanathan, K.; Johari, G. P.
CORPORATE SOURCE: Dep. Metall. Mater. Sci., McMaster Univ., Hamilton, ON, L8S 4L7, Can.
SOURCE: Journal of Physics C: Solid State Physics (1985), 18(35), 6535-45
CODEN: JPSOAW; ISSN: 0022-3719
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The dielec. permittivity and loss of 1-cyanoadamantane were measured under isothermal conditions at 80-350 K and 100 to 2 + 105 Hz in glassy crystals, supercooled (metastable) and stable (disordered) crystals, and in materials with partially ordered crystalline states. Two relaxation regions were observed, one above the glass-like transition temperature (170 K) and the other below it. The characteristics of the 2 relaxations are remarkably similar to those found in other isotropic and anisotropic glasses and glassy crystals. The implications of this similarity for the authors' concepts of the glass transition and configurational states are pointed out. The static permittivity of 1-cyanoadamantane shows that it is only partially disordered even at high temps. and that its disorder-order transformation occurs over a wide temperature range. Isothermal measurements in this range show no time dependence of the ordering process.

L13 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:22132 HCAPLUS
DOCUMENT NUMBER: 80:22132
TITLE: Anodic chemistry of adamantyl compounds. Scissible carbon, halogen, hydrogen, and oxygen substituents
AUTHOR(S): Koch, Victor R.; Miller, Larry L.
CORPORATE SOURCE: Dep. Chem., Colorado State Univ., Fort Collins, CO, USA
SOURCE: Journal of the American Chemical Society (1973), 95(26), 8631
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The anodic oxidation of adamantane was performed potentiostatically at Pt in MeCN. Passage of 2 electrons/mol. of current produced N-(1-adamantyl)acetonitrilium ions as the major product. Aqueous work-up produced 1-adamantylacetamide in yields of 65-90% based on the initial amount of adamantane. Quenching the anolyte with MeOH led to the corresponding imino ether. A process involving direct oxidation of adamantane is proposed. A series of 1-substituted adamantanes was also oxidized on a preparative scale. Br, Ac, and hydroxymethyl were cleaved anodically, and 1-adamantylacetamide resulted. Cl, F, carbomethoxy, Me, cyano, and acetoxymethyl were not cleaved, and high yields of 3-substituted 1-acetamidoadamantanes were produced. These results are rationalized in terms of the HOMO (highest occupied MO) of the reactant and the stability of the fragments which would be possible by cleaving the substituent. Analogies with mass spectrometry are drawn.

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DICTIONARY FILE UPDATES: 13 APR 2007 HIGHEST RN 930268-90-9

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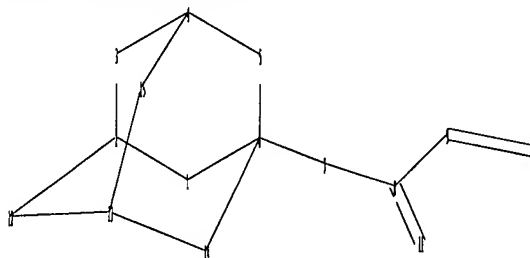
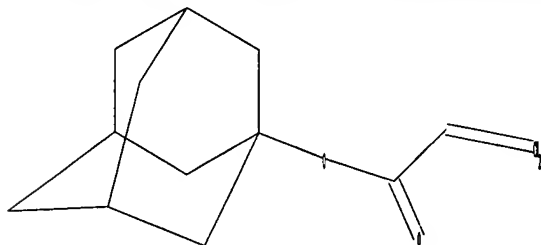
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chain nodes :
7 8 9 10 11
ring nodes :
1 2 3 4 5 6 12 13 14 15
chain bonds :
6-7 7-8 8-9 8-11 9-10
ring bonds :
1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 6-14 12-13 13-14 13-15
exact/norm bonds :
6-7 7-8 8-11
exact bonds :
1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 6-14 8-9 9-10 12-13 13-14 13-15
isolated ring systems :
containing 1 :

10525429.trn

G1:H,CH3,CF3

Match level :

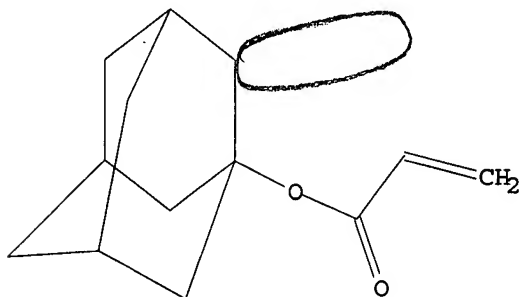
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11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom

L14 STRUCTURE UPLOADED

=> d l14

L14 HAS NO ANSWERS

L14 STR



G1 H,Me,CF3

Structure attributes must be viewed using STN Express query preparation.

=> s l14

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100.0% PROCESSED 1577 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 29158 TO 33922

PROJECTED ANSWERS: 2126 TO 3554

L15 50 SEA SSS SAM L14

=> s l14 sss full

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100.0% PROCESSED 30987 ITERATIONS

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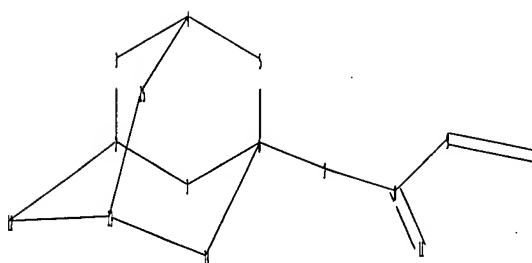
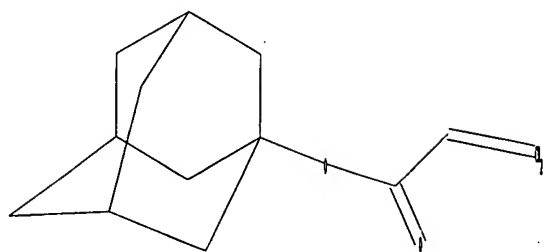
2819 ANSWERS

L16 2819 SEA SSS FUL L14

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10525429.trn



chain nodes :

7 8 9 10 11

ring nodes :

1 2 3 4 5 6 12 13 14 15

chain bonds :

6-7 7-8 8-9 8-11 9-10

ring bonds :

1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 6-14 12-13 13-14 13-15

exact/norm bonds :

6-7 7-8 8-11

exact bonds :

1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 6-14 8-9 9-10 12-13 13-14 13-15

isolated ring systems :

containing 1 :

G1:H,CH₃,CF₃

Match level :

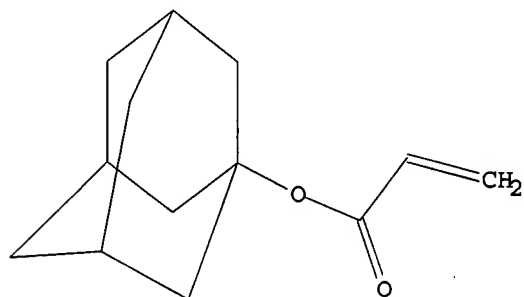
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L17 STRUCTURE UPLOADED

=> d l17

L17 HAS NO ANSWERS

L17 STR



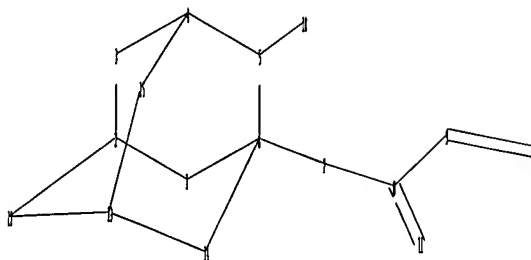
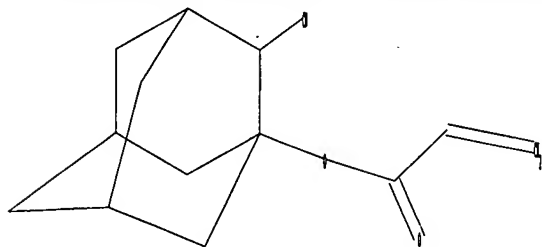
G1 H,Me,CF₃

Structure attributes must be viewed using STN Express query preparation.

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chain nodes :

7 8 9 10 11 18

ring nodes :

1 2 3 4 5 6 12 13 14 15

chain bonds :

5-18 6-7 7-8 8-9 8-11 9-10

ring bonds :

1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 6-14 12-13 13-14 13-15

exact/norm bonds :

6-7 7-8 8-11

exact bonds :

1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 5-18 6-14 8-9 9-10 12-13 13-14 13-15

isolated ring systems :

containing 1 :

G1:H,CH₃,CF₃

Match level :

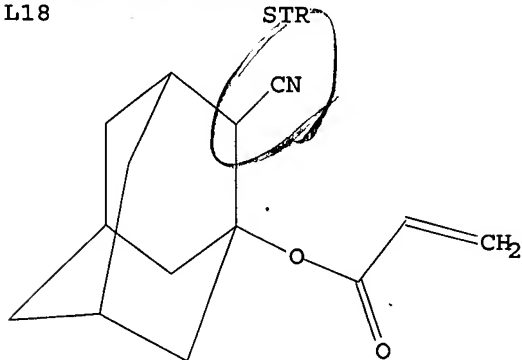
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11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 18:CLASS

L18 STRUCTURE UPLOADED

=> d l18

L18 HAS NO ANSWERS

L18



G1 H, Me, CF₃

10525429.trn

Structure attributes must be viewed using STN Express query preparation.

=> s l18

SAMPLE SEARCH INITIATED 12:45:43 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 3 TO 163
PROJECTED ANSWERS: 0 TO 0

L19 0 SEA SSS SAM L18

=> s l18 sss full

FULL SEARCH INITIATED 12:45:50 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 17 TO ITERATE

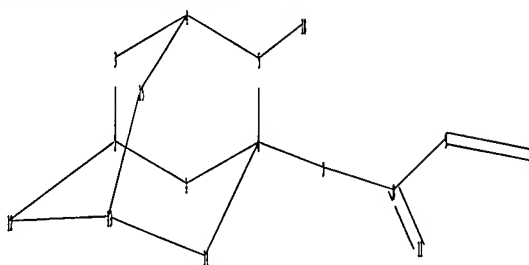
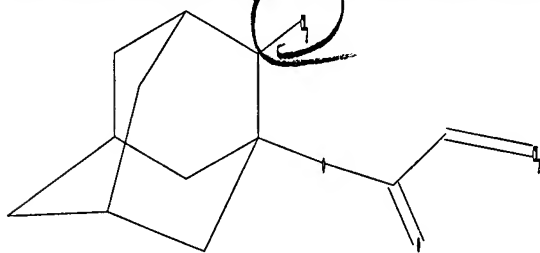
100.0% PROCESSED 17 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

L20 0 SEA SSS FUL L18

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chain nodes :

7 8 9 10 11 18

ring nodes :

1 2 3 4 5 6 12 13 14 15

chain bonds :

5-18 6-7 7-8 8-9 8-11 9-10

ring bonds :

1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 6-14 12-13 13-14 13-15

exact/norm bonds :

6-7 7-8 8-11

exact bonds :

1-2 1-6 2-3 2-12 3-4 4-5 4-15 5-6 5-18 6-14 8-9 9-10 12-13 13-14
13-15

isolated ring systems :

containing 1 :

G1:H, CH3, CF3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 18:CLASS

04/15/2007

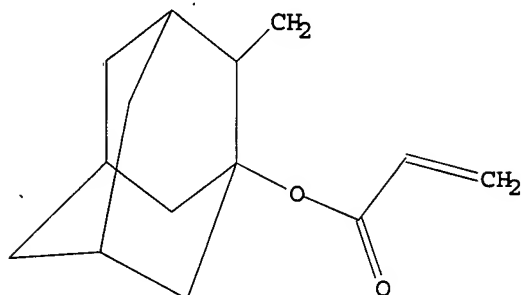
Page 25

L21 STRUCTURE UPLOADED

=> d 121

L21 HAS NO ANSWERS

L21 STR

G1 H, Me, CF₃

Structure attributes must be viewed using STN Express query preparation.

=> s 121

SAMPLE SEARCH INITIATED 12:48:08 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1069 TO ITERATE

100.0% PROCESSED 1069 ITERATIONS

SEARCH TIME: 00.00.01

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 19419 TO 23341

PROJECTED ANSWERS: 1 TO 80

L22 1 SEA SSS SAM L21

=> s 121 sss full

FULL SEARCH INITIATED 12:48:15 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 20981 TO ITERATE

100.0% PROCESSED 20981 ITERATIONS

SEARCH TIME: 00.00.01

23 ANSWERS

L23 23 SEA SSS FUL L21

=> FIL HCAPLUS

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L24 9 L23

=> d his

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FILE 'REGISTRY' ENTERED AT 12:33:47 ON 15 APR 2007

L1	STRUCTURE UPLOADED
L2	0 S L1
L3	0 S L1 SSS FULL
L4	STRUCTURE UPLOADED
L5	0 S L4
L6	0 S L4 SSS FULL
L7	STRUCTURE UPLOADED
L8	0 S L7
L9	7 S L7 SSS FULL

FILE 'HCAPLUS' ENTERED AT 12:37:03 ON 15 APR 2007

L10	1 S L9
L11	7541 S ADAMANTANE
L12	111 S L11 AND CYANO
L13	9 S L12 AND PROCESS

FILE 'REGISTRY' ENTERED AT 12:43:19 ON 15 APR 2007

L14	STRUCTURE UPLOADED
L15	50 S L14
L16	2819 S L14 SSS FULL
L17	STRUCTURE UPLOADED
L18	STRUCTURE UPLOADED
L19	0 S L18
L20	0 S L18 SSS FULL
L21	STRUCTURE UPLOADED
L22	1 S L21
L23	23 S L21 SSS FULL

FILE 'HCAPLUS' ENTERED AT 12:48:20 ON 15 APR 2007

10525429.trn

L24 9 S L23

=> s l16

L25 1094 L16

=> s l23

L26 9 L23

=> s l25 and adamantane

7250 ADAMANTANE

1119 ADAMANTANES

7541 ADAMANTANE

(ADAMANTANE OR ADAMANTANES)

L27 112 L25 AND ADAMANTANE

=> s l9 and adamantane

1 L9

7250 ADAMANTANE

1119 ADAMANTANES

7541 ADAMANTANE

(ADAMANTANE OR ADAMANTANES)

L28 0 L9 AND ADAMANTANE

=> s l27 and cyano

82624 CYANO

3 CYANOS

82625 CYANO

(CYANO OR CYANOS)

L29 6 L27 AND CYANO

=> d his

(FILE 'HOME' ENTERED AT 12:33:24 ON 15 APR 2007)

FILE 'REGISTRY' ENTERED AT 12:33:47 ON 15 APR 2007

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 0 S L1 SSS FULL

L4 STRUCTURE UPLOADED

L5 0 S L4

L6 0 S L4 SSS FULL

L7 STRUCTURE UPLOADED

L8 0 S L7

L9 7 S L7 SSS FULL

FILE 'HCAPLUS' ENTERED AT 12:37:03 ON 15 APR 2007

L10 1 S L9

L11 7541 S ADAMANTANE

L12 111 S L11 AND CYANO

L13 9 S L12 AND PROCESS

FILE 'REGISTRY' ENTERED AT 12:43:19 ON 15 APR 2007

L14 STRUCTURE UPLOADED

L15 50 S L14

L16 2819 S L14 SSS FULL

L17 STRUCTURE UPLOADED

L18 STRUCTURE UPLOADED

L19 0 S L18

L20 0 S L18 SSS FULL

L21 STRUCTURE UPLOADED

10525429.trn

L22 1 S L21
L23 23 S L21 SSS FULL

FILE 'HCAPLUS' ENTERED AT 12:48:20 ON 15 APR 2007

L24 9 S L23
L25 1094 S L16
L26 9 S L23
L27 112 S L25 AND ADAMANTANE
L28 0 S L9 AND ADAMANTANE
L29 6 S L27 AND CYANO

=> d l24 ibib abs hitstr tot

L24 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:286859 HCAPLUS

DOCUMENT NUMBER: 146:347443

TITLE: Positive resist composition and pattern-forming method
using the same

INVENTOR(S): Kanda, Hiromi; Kanna, Shinichi; Inabe, Haruki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 71pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007059639	A1	20070315	US 2006-519966	20060913
EP 1764652	A2	20070321	EP 2006-19196	20060913

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
BA, HR, MK, YU

PRIORITY APPLN. INFO.:

JP 2005-265750	A	20050913
JP 2005-356959	A	20051209
JP 2006-107726	A	20060410

AB A pos. resist composition comprises: (A) a resin capable of increasing its solubility in an alkali developer by action of an acid and not containing a silicon atom; (B) a compound capable of generating an acid upon irradiation with actinic ray or radiation, (C) a silicon atom-containing resin having at least one group selected from groups (X) to (Z), (X) an alkali-soluble group, (Y) a group capable of decomposing by action of an alkali developer to increase the solubility of resin (C) in an alkali developer, (Z) a group capable of decomposing by action of an acid to increase the solubility of resin (C) in an alkali developer; and (D) a solvent.

IT 327603-42-9P 929196-84-9P 929196-85-0P
929196-86-1P 929196-87-2P 929196-90-7P
929196-92-9P 929196-93-0P 929196-96-3P
929196-97-4P 929197-02-4P

RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos. photoresist composition for pattern-forming method)

RN 327603-42-9 HCAPLUS

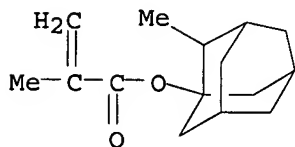
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl ester,
polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

10525429.trn

CM 1

CRN 221054-68-8

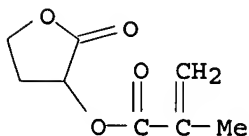
CMF C15 H22 O2



CM 2

CRN 195000-66-9

CMF C8 H10 O4



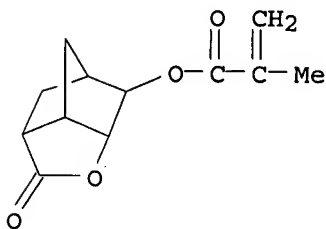
RN 929196-84-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1.3,7]dec-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 254900-07-7

CMF C12 H14 O4

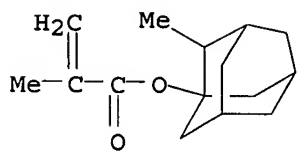


CM 2

CRN 221054-68-8

CMF C15 H22 O2

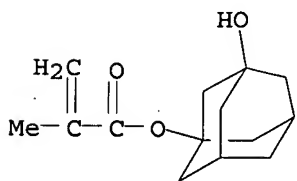
10525429.trn



CM 3

CRN 115372-36-6

CMF C14 H20 O3



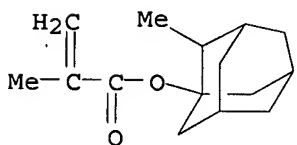
RN 929196-85-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxybicyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 2-methylbicyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 221054-68-8

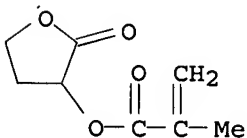
CMF C15 H22 O2



CM 2

CRN 195000-66-9

CMF C8 H10 O4

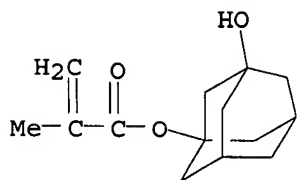


CM 3

CRN 115372-36-6

10525429.trn

CMF C14 H20 O3



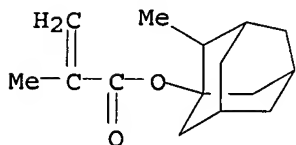
RN 929196-86-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 2-methyltricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 221054-68-8

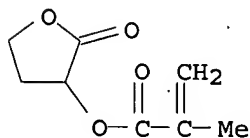
CMF C15 H22 O2



CM 2

CRN 195000-66-9

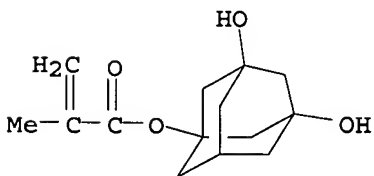
CMF C8 H10 O4



CM 3

CRN 115522-15-1

CMF C14 H20 O4



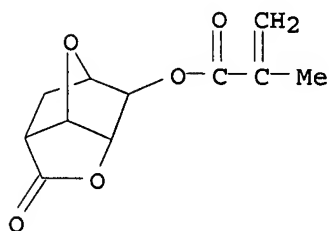
RN 929196-87-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl
 ester, polymer with hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl
 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl
 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 274248-05-4

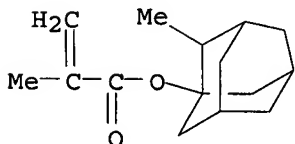
CMF C11 H12 O5



CM 2

CRN 221054-68-8

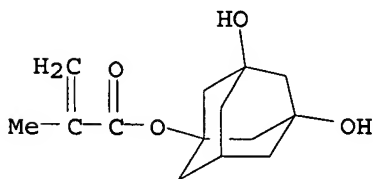
CMF C15 H22 O2



CM 3

CRN 115522-15-1

CMF C14 H20 O4



RN 929196-90-7 HCAPLUS

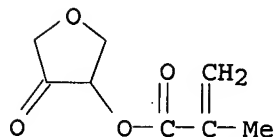
CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl
 ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl
 2-methyl-2-propenoate, octahydro-4,7-methano-1H-inden-5-yl
 2-methyl-2-propenoate and tetrahydro-4-oxo-3-furanyl 2-methyl-2-propenoate
 (CA INDEX NAME)

10525429.trn

CM 1

CRN 483367-39-1

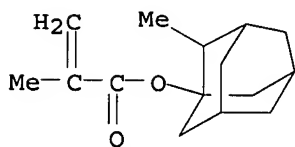
CMF C8 H10 O4



CM 2

CRN 221054-68-8

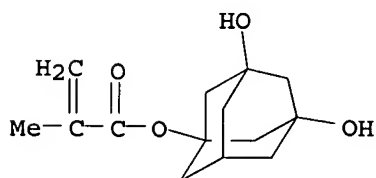
CMF C15 H22 O2



CM 3

CRN 115522-15-1

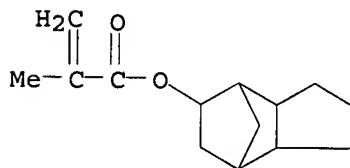
CMF C14 H20 O4



CM 4

CRN 34759-34-7

CMF C14 H20 O2



RN 929196-92-9 HCAPLUS

CN Propanedioic acid, 2-methylene-, 1-(2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl)

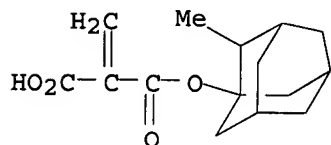
10525429.trn

ester, polymer with hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl
2-(hydroxymethyl)-2-propenoate (CA INDEX NAME)

CM 1

CRN 929196-91-8

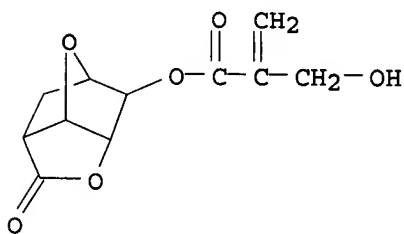
CMF C15 H20 O4



CM 2

CRN 819837-21-3

CMF C11 H12 O6



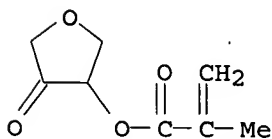
RN 929196-93-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester,
polymer with 2-methylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate,
2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and
tetrahydro-4-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 483367-39-1

CMF C8 H10 O4

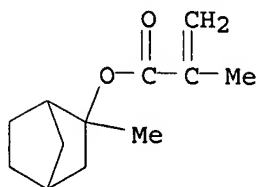


CM 2

CRN 344614-23-9

CMF C12 H18 O2

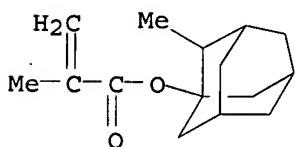
10525429.trn



CM 3

CRN 221054-68-8

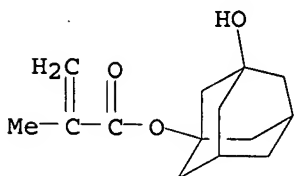
CMF C15 H22 O2



CM 4

CRN 115372-36-6

CMF C14 H20 O3



RN 929196-96-3 HCAPLUS

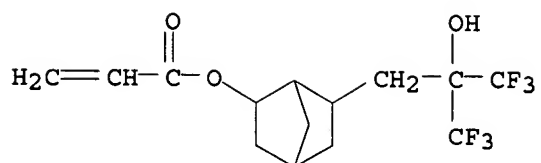
CN 2-Propenoic acid, 2-methyl-, hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate, 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and 6-[3,3,3-trifluoro-2-hydroxy-2-(trifluoromethyl)propyl]bicyclo[2.2.1]hept-2-yl 2-propenoate (CA INDEX NAME)

CM 1

CRN 824411-02-1

CMF C14 H16 F6 O3

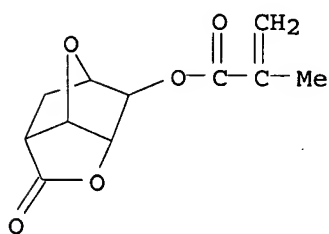
10525429.trn



CM 2

CRN 274248-05-4

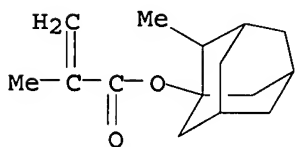
CMF C11 H12 O5



CM 3

CRN 221054-68-8

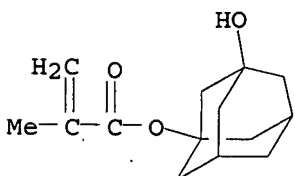
CMF C15 H22 O2



CM 4

CRN 115372-36-6

CMF C14 H20 O3



RN 929196-97-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with hexahydro-2-oxo-3-(trifluoromethyl)-3,5-methano-2H-cyclopenta[b]furan-6-yl

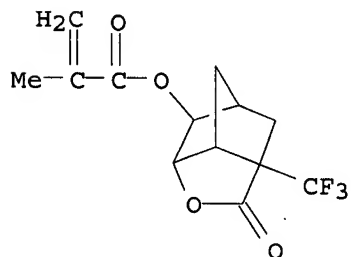
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2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate
and 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (CA INDEX
NAME)

CM 1

CRN 787618-69-3

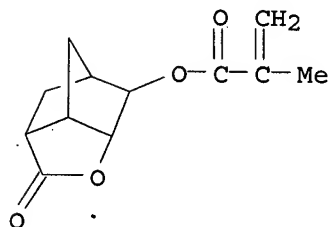
CMF C13 H13 F3 O4



CM 2

CRN 254900-07-7

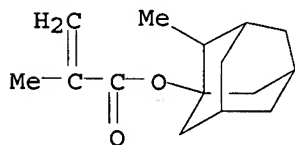
CMF C12 H14 O4



CM 3

CRN 221054-68-8

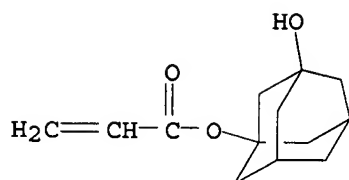
CMF C15 H22 O2



CM 4

CRN 216581-76-9

CMF C13 H18 O3



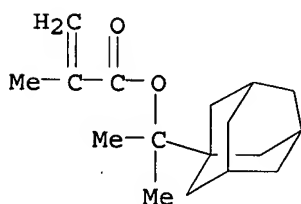
RN 929197-02-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl 2-methyl-2-propenoate, 1-methyl-1-tricyclo[3.3.1.1.3,7]dec-1-ylethyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.1.3,7]dec-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 279218-76-7

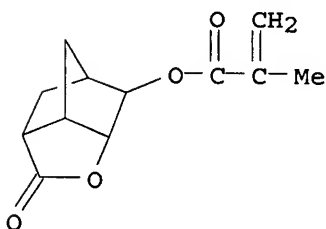
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CM 2

CRN 254900-07-7

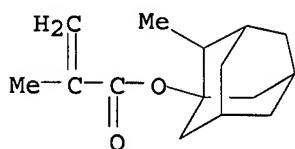
CMF C12 H14 O4



CM 3

CRN 221054-68-8

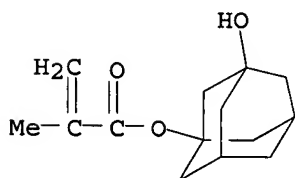
CMF C15 H22 O2



CM 4

CRN 115372-36-6

CMF C14 H20 O3



L24 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:1242762 HCAPLUS
 DOCUMENT NUMBER: 143:485836
 TITLE: Chemically amplified positive resist composition, a haloester derivative and a process for producing the same
 INVENTOR(S): Takemoto, Ichiki; Hashimoto, Kazuhiko; Miyagawa, Takayuki
 PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
 SOURCE: U.S. Pat. Appl. Publ., 39 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005260525	A1	20051124	US 2005-123104	20050506
CN 1696828	A	20051116	CN 2005-10070438	20050509
KR 2006045969	A	20060517	KR 2005-38309	20050509
JP 2005352466	A	20051222	JP 2005-138226	20050511
PRIORITY APPLN. INFO.:			JP 2004-140709	A 20040511
OTHER SOURCE(S):	MARPAT 143:485836			
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention provides a chemical amplified pos. resist composition comprising (A) a resin which comprises (i) at least one structural unit selected from the group consisting of structural units I (wherein Z4 is a methylene group, an ethylene group, a trimethylene group or a

tetramethylene group, $n = 0-1$, R_4 is a Me group, an Et group, a methoxy group or an ethoxy group, and $q = 0-1$), (ii) a structural unit II (wherein X represents a hydrogen atom, an alkyl group having 1 to 4 carbon atoms or a perfluoroalkyl group having 1 to 4 carbon atoms, Z represents a divalent hydrocarbon group having 1 to 12 carbon atoms, R represents an alkyl group having 1 to 6 carbon atoms, and m represents an integer of 0 to 2) and (iii) a structural unit III (wherein X_1 represents a hydrogen atom, an alkyl group having 1 to 4 carbon atoms or a perfluoroalkyl group having 1 to 4 carbon atoms, Z_1 represents a divalent hydrocarbon group having 1 to 12 carbon atoms, n_1 represents an integer of 0 to 3, R_1 represents an alkyl group having 1 to 6 carbon atoms or a cycloalkyl group having 3 to 12 carbon atoms, and Y represents at least two atoms necessary to form an alicyclic hydrocarbon group together with the adjacent carbon atom), and (B) an acid generator. The present invention also provides a haloester derivative of the formula IV (wherein W_1 represents a chlorine atom, a bromine atom or an iodine atom, Z represents a divalent hydrocarbon group having 1 to 12 carbon atoms, R represents an alkyl group having 1 to 6 carbon atoms, and m represents an integer of 0 to 2) and a process for producing the same. The composition is suitable for ArF excimer laser lithog. and shows excellent various resist abilities such as resolution, sensitivity, pattern shape and the like, and giving particularly excellent line edge roughness, and capable of giving finer patterns by reflow step.

IT 869796-14-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified pos. resist composition, a haloester derivative and a process

for producing the same)

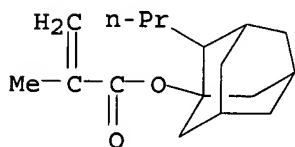
RN 869796-14-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[(hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl)oxy]-2-oxoethyl ester, polymer with 5-hydroxytricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate, 2-propyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 869796-13-4

CMF C17 H26 O2

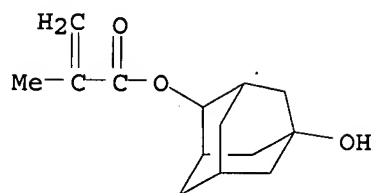


CM 2

CRN 366809-04-3

CMF C14 H20 O3

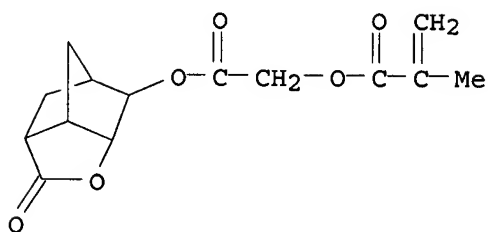
10525429.trn



CM 3

CRN 347886-81-1

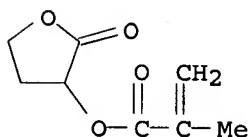
CMF C14 H16 O6



CM 4

CRN 195000-66-9

CMF C8 H10 O4



L24 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:855512 HCAPLUS

DOCUMENT NUMBER: 139:343483

TITLE: Radiation-sensitive resin composition

INVENTOR(S): Nishimura, Yukio; Ishii, Hiroyuki; Yamamoto, Masafumi;
Nishimura, Isao

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 26 pp.

CODEN: USXXCO

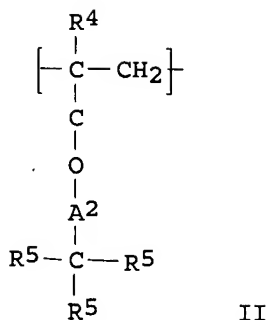
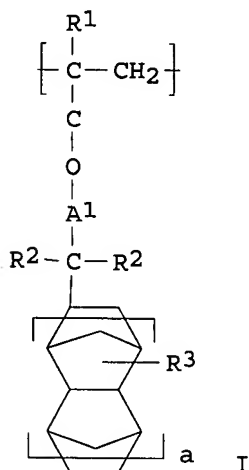
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003203309	A1	20031030	US 2003-386707	20030313
JP 2003337419	A	20031128	JP 2003-66164	20030312



AB A radiation-sensitive resin composition suitable as a chemical amplified resist useful for microfabrication comprises: (A) a resin insol. or scarcely soluble in alkali, but becomes alkali soluble by the action of an acid and (B) a photoacid generator. The resin comprises at least one recurring unit of the following formula I (R1 = H, methyl; A1 = single bond, X1-COO-; X1 = methylene, alkylene with less with 10 carbon atoms; R2 = C1-6 alkyl; n = 0, 1; R3 = H, C1-6 alkyl, oxygen containing group), II (R4 = H, methyl; A2 = single bond, X2-COO-; X2 = methylene, alkylene with less with 10 carbon atoms; R5 = C1-4 alkyl, C4-20 monovalent alicycli hydrocarbon group).

IT 617711-85-0P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(radiation-sensitive resin composition for microfabrication containing)

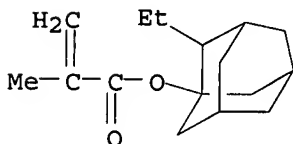
RN 617711-85-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 334643-68-4

CMF C16 H24 O2

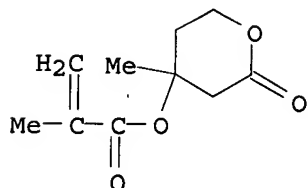


CM 2

CRN 177080-66-9

10525429.trn

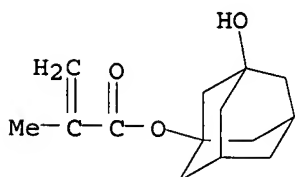
CMF C10 H14 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



L24 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:261353 HCAPLUS

DOCUMENT NUMBER: 134:303020

TITLE: Far-UV sensitive positive-working chemically amplified photoresist composition for micro photolithography

INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001100421	A	20010413	JP 1999-280202	19990930
PRIORITY APPLN. INFO.:			JP 1999-280202	19990930

AB The title composition contains a photoacid generator and a resin increasing the solubility towards an alkali developer by reacting with an acid, wherein the resin has a quaternary ammonium salt group. The addition of the acid-sensitive resin containing quaternary ammonium salt group to the composition

provides improved development characteristics and eliminates rough edges on the pattern.

IT 334643-69-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin containing quaternary ammonium salt group in far-UV sensitive pos.-working chemical amplified photoresist composition)

RN 334643-69-5 HCAPLUS

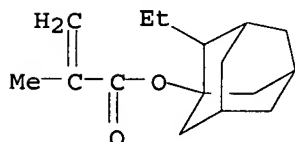
10525429.trn

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, salt with 6,7-dihydroxy-2-naphthalenesulfonic acid (1:1), polymer with 1,1-dimethyl-2-oxo-2-[(tetrahydro-2-oxo-3-furanyl)oxy]ethyl 2-methyl-2-propenoate and 2-ethyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 334643-68-4

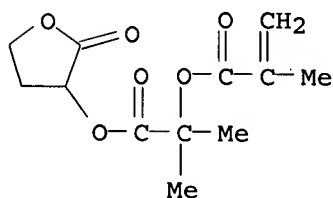
CMF C16 H24 O2



CM 2

CRN 288303-54-8

CMF C12 H16 O6



CM 3

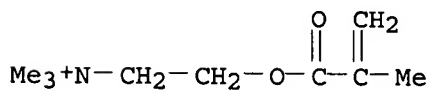
CRN 334643-67-3

CMF C10 H7 O5 S . C9 H18 N O2

CM 4

CRN 33611-56-2

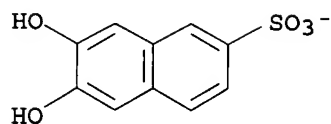
CMF C9 H18 N O2



CM 5

CRN 32743-86-5

CMF C10 H7 O5 S



L24 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:210133 HCAPLUS

DOCUMENT NUMBER: 134:245236

TITLE: Photopolymerizable composition and chemical amplification-type photoresist using it

INVENTOR(S): Chung, Dong Hang; Choi, Sang Joon; Lee, Shi Hung; Lee, Sook

PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd., S. Korea

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001075285	A	20010323	JP 2000-231006	20000731
JP 3609326	B2	20050112		
US 6472120	B1	20021029	US 2000-628499	20000728
US 2002193542	A1	20021219	US 2002-218637	20020815
US 2003170563	A1	20030911	US 2003-383770	20030310
US 6893793	B2	20050517		
US 2005019693	A1	20050127	US 2004-925983	20040826
US 7084227	B2	20060801		

PRIORITY APPLN. INFO.:

KR 1999-31060	A	19990729
US 2000-628499	A3	20000728
US 2002-218637	A3	20020815
US 2003-383770	A3	20030310

AB The photosensitive polymer (weight average mol. weight 3000-100,000) is a copolymer

of norbornene ester substituted with C1-12 aliphatic alc. and maleic acid anhydride. The polymer may have a norbornene derivative and an (meth)acrylic acid (ester) as other monomers. The chemical amplification resist comprises the polymer and 1-15 weight% (based on the polymer) of a photoacid generator. The composition shows good adhesion with the substrate, wettability with the developer, and good etching resistance.

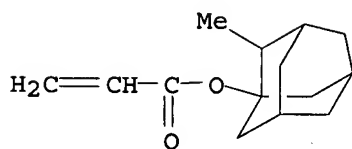
IT 133946-79-9P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of)

RN 133946-79-9 HCAPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl ester (9CI) (CA INDEX NAME)



L24 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:806409 HCAPLUS

DOCUMENT NUMBER: 134:200415

TITLE: Mechanical property of organic resists for ArF lithography

AUTHOR(S): Morisawa, Taku; Tanaka, Toshihiko P.; Terasawa, Tsuneo

CORPORATE SOURCE: Cent. Res. Lab., Hitachi Ltd., Kokubunji Tokyo, Japan

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2000), 3999(Pt. 2, Advances in Resist Technology and Processing XVII), 992-999

CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors have studied the mech. property of ArF resists formed on Si substrate. The authors measured strength in resist film by introducing the scratch test method. Stress is also evaluated by measuring the curvature of Si wafer coated with resist. The results showed that the mech. property of resist films mainly depends on the resist polymer structures. A half strength and 5 times large stress of typical ArF resist films comparing with KrF resist explain the observed behaviors of ArF resist such as peering or cracking in lithog. process.

IT 327603-42-9

RL: PRP (Properties)

(mech. property dependent on polymer structure of organic resists for ArF lithog.)

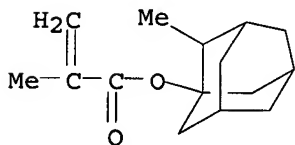
RN 327603-42-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1.3,7]dec-1-yl ester, polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 221054-68-8

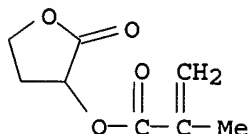
CMF C15 H22 O2



CM 2

CRN 195000-66-9

CMF C8 H10 O4



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:189047 HCAPLUS

DOCUMENT NUMBER: 130:230068

TITLE: The composition for subbing layer and pattern formation using same

INVENTOR(S): Sato, Yasuhiko; Onishi, Kiyonobu

PATENT ASSIGNEE(S): Toshiba Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11072925	A	19990316	JP 1998-186575	19980701
US 6054254	A	20000425	US 1998-108967	19980702
PRIORITY APPLN. INFO.:			JP 1997-178671	A 19970703

AB Pattern formation comprises (1) forming a subbing layer on a process required film, (2) forming a resist film on the subbing layer, (3) exposing the subbing layer and the resist film, and (4) developing the exposed subbing layer and the resist film with a developer solution, wherein the subbing layer shows different solubility to the developer solution on acid condition, and an acid-generator is contained in the subbing layer and/or the resist film.

IT 221054-69-9

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(solubility-suppressing agent contained in subbing layer composition for pattern formation)

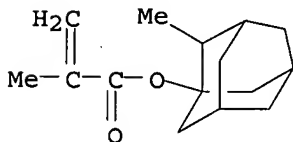
RN 221054-69-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 221054-68-8

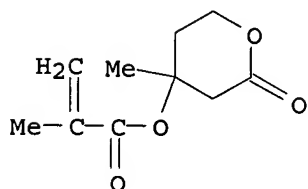
CMF C15 H22 O2



CM 2

CRN 177080-66-9

CMF C10 H14 O4



L24 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:233675 HCAPLUS
 DOCUMENT NUMBER: 114:233675
 TITLE: Coated optical fibers
 INVENTOR(S): Nonaka, Takeshi
 PATENT ASSIGNEE(S): Sumitomo Electric Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02223903	A	19900906	JP 1989-43154	19890227
PRIORITY APPLN. INFO.:			JP 1989-43154	19890227

AB The optical fibers are coated with a radiation-curable resin prepared from a (meth)acrylate oligomer, a reactive diluent, i.e., a polycyclic compound, and an initiator. Preferably, the polycyclic compound is a tricyclic compound, e.g., adamantane or its derivs. An oligomer, prepared from TDI, poly(oxytetramethylene glycol), and 2-hydroxyethyl acrylate, was mixed with adamantane acrylate and Bz Me ether for coating optical fibers. The coated fibers had high heat resistance.

IT 133946-80-2
 RL: USES (Uses)
 (radiation-curable, coating with, of optical fibers)

RN 133946-80-2 HCAPLUS

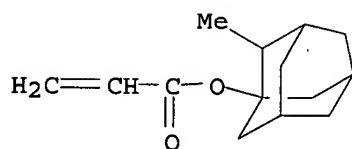
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with 1,3-diisocyanatomethylbenzene, α -hydro- ω -hydroxypoly(oxy-1,4-butanediyl) and 2-methyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate (9CI)
 (CA INDEX NAME)

CM 1

CRN 133946-79-9

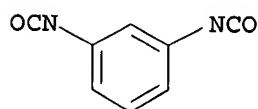
CMF C14 H20 O2

10525429.trn



CM 2

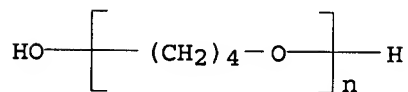
CRN 26471-62-5
CMF C9 H6 N2 O2
CCI IDS



D1-Me

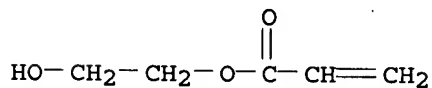
CM 3

CRN 25190-06-1
CMF (C4 H8 O)_n H2 O
CCI PMS



CM 4

CRN 818-61-1
CMF C5 H8 O3



L24 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:204477 HCAPLUS
DOCUMENT NUMBER: 102:204477
TITLE: Methacrylate resins with low water absorption
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59227909	A	19841221	JP 1983-103950	19830609
JP 05006161	B	19930126		

PRIORITY APPLN. INFO.: JP 1983-103950 19830609

AB The resins are prepared by polymerizing methacrylate esters containing alicyclic

C8-20 hydrocarbyl groups in the ester moiety while keeping volatiles ≤1.2%. The resins show high heat resistance and low water absorption and are useful for manufacture of video and audio disks. Thus, a mixture of 170 g bornyl methacrylate and 30 g Me acrylate was polymerized partly

in the presence of AIBN and polymerized further in a glass cell in the presence of azobisvaleronitrile to obtain a resin [88907-35-1] showing volatiles content 0.9%, heat deflection temperature 150°, and water absorption 0.7%.

IT 96397-52-3P

RL: PREP (Preparation)
 (preparation of low-water-absorbing)

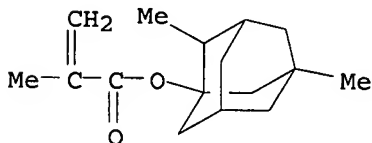
RN 96397-52-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,7-dimethyltricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 96397-51-2

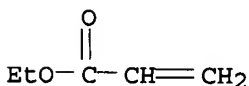
CMF C16 H24 O2



CM 2

CRN 140-88-5

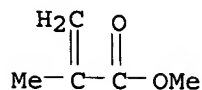
CMF C5 H8 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



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L29 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:998776 HCAPLUS

DOCUMENT NUMBER: 143:295593

TITLE: Photoresists comprising cyano adamantyl moiety-containing polymers

INVENTOR(S): Bae, Young C.; Kananagh, Robert J.

PATENT ASSIGNEE(S): Rohm and Haas Electronic Materials, L.L.C., USA

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

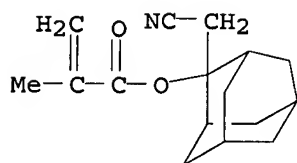
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

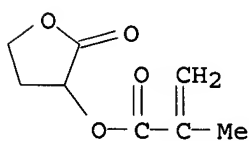
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1574903	A1	20050914	EP 2005-251342	20050307
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2005258438	A	20050922	JP 2005-61914	20050307
US 2005208417	A1	20050922	US 2005-75544	20050308
CN 1683997	A	20051019	CN 2005-10054399	20050308
KR 2006043494	A	20060515	KR 2005-18984	20050308
PRIORITY APPLN. INFO.:			US 2004-551448P	P 20040308
AB Cyano adamantyl compds., polymers that comprise polymerized units of such compds., and photoresist compds. that comprise such polymers are provided. Preferred polymers of the invention are employed in photoresists imaged at wavelengths less than 250 nm such as 248 nm and 193 nm.				
IT 864367-15-7P RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of cyano adamantyl moiety-containing polymers for photoresists)				
RN 864367-15-7 HCAPLUS				
CN 2-Propenoic acid, 2-methyl-, 2-(cyanomethyl)tricyclo[3.3.1.1 ^{3,7}]dec-2-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM 1				
CRN 853644-75-4				
CMF C16 H21 N O2				



CM 2

CRN 195000-66-9

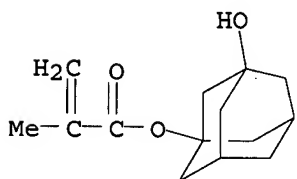
CMF C8 H10 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



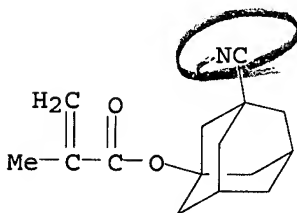
IT 864367-14-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cyano adamantyl moiety-containing polymers for photoresists)

RN 864367-14-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-cyanotricyclo[3.3.1.13,7]dec-1-yl ester (9CI) (CA INDEX NAME)



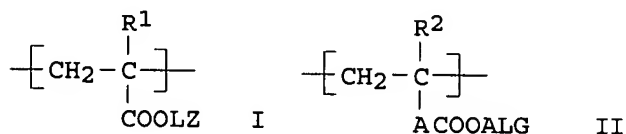
REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:430044 HCAPLUS
 DOCUMENT NUMBER: 140:414953
 TITLE: Chemically amplified positive-working far-UV
 photoresist compositions
 INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004151355	A	20040527	JP 2002-316284	20021030
PRIORITY APPLN. INFO.:			JP 2002-316284	20021030
OTHER SOURCE(S):	MARPAT.	140:414953		
GI				



AB The compns. contain polymers increasing solubility rate in alkaline developers upon

acid action and containing repeating units of A1-3 including [A1; CH₂C(R1)(CO₂LZ)] [R1 = H, alkyl; L = single bond, alkylene, ether, ester, etc.; Z = CO₂H, OH, SO₂N(R3)2, COCH₂COR4, etc.; R3, R5-7 = H, alkyl; R4 = hydrocarbyl; m = 1-20; Z = [CH(R5)CH(R6)O]_mR7 when L = single bond], [A2; CH₂C(R2)(ACO₂ALG)] [R2 = H, Me; A = single bond, connecting group; ALG = Q, etc.; R11 = Me, Et, Pr, etc.; Z = atomic group forming alicyclic hydrocarbylene group with carbon], and [A3; CH₂C(R3)(A'Z3(OH)_p)] [R3 = H, Me; A' = single bond, divalent connecting group; Z3 = alicyclic hydrocarbylene having valences of (p + 1); p = 1-3]; sulfonate enone photoacid generator I or II [RB1-B3 = H, alkyl, alkenyl, etc.; RB4-B5 = H, cyano, alkyl, etc.; Y1-2 = alkyl, aryl, aralkyl, etc.; n = 1-4; ≥2 selected from RB1-B5 and Y1-2 may be bonded to via a connecting group so as to have ≥2 structure of I and/or II; X- = nonnucleophilic anion]; and solvents. The polymers may further contain repeating units of cyclohexanelactone, norbornane lactone, or adamantane lactone. The compns. provide sharp line edge patterns.

IT 680223-02-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(in chemical amplified pos.-working far-UV photoresist compns. containing sulfonate enone photoacid generators)

RN 680223-02-3 HCAPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl

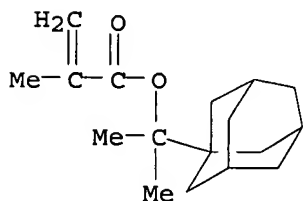
10525429.trn

2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 279218-76-7

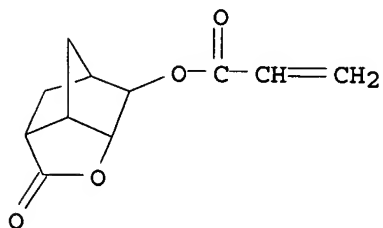
CMF C17 H26 O2



CM 2

CRN 242129-35-7

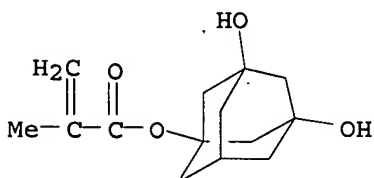
CMF C11 H12 O4



CM 3

CRN 115522-15-1

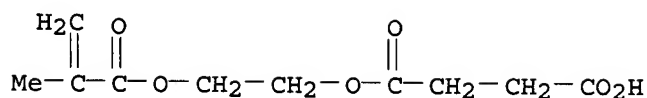
CMF C14 H20 O4



CM 4

CRN 20882-04-6

CMF C10 H14 O6



IT 680223-04-5 680223-08-9 680223-10-3
 680223-12-5 683810-47-1 690663-95-7
 690663-96-8 690663-97-9 690663-99-1
 690664-16-5

RL: TEM (Technical or engineered material use); USES (Uses)
 (in chemical amplified pos.-working far-UV photoresist compns. containing
 sulfonate enone photoacid generators)

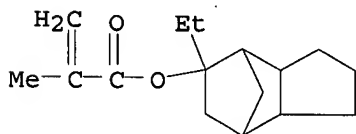
RN 680223-04-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,3-dihydroxypropyl ester, polymer with
 5-ethyloctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate,
 hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl
 2-methyl-2-propenoate and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl
 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 348089-09-8

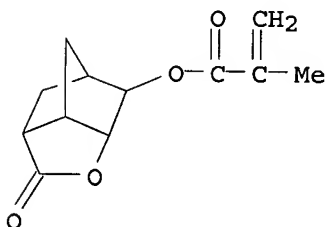
CMF C16 H24 O2



CM 2

CRN 254900-07-7

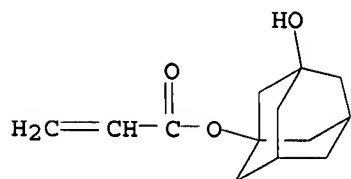
CMF C12 H14 O4



CM 3

CRN 216581-76-9

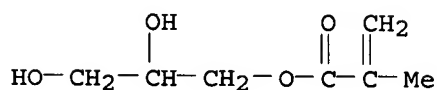
CMF C13 H18 O3



CM 4

CRN 5919-74-4

CMF C7 H12 O4



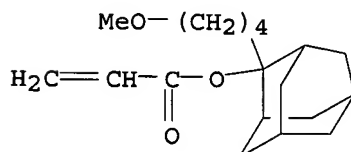
RN 680223-08-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-methyl-2-propenoate, 2-(4-methoxybutyl)tricyclo[3.3.1.13,7]dec-2-yl 2-propenoate, 2-(2-methoxyethoxy)ethyl 2-methyl-2-propenoate and 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 581784-05-6

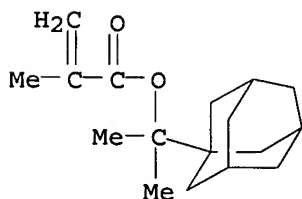
CMF C18 H28 O3



CM 2

CRN 279218-76-7

CMF C17 H26 O2

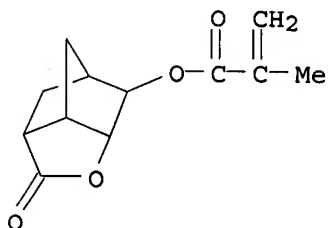


10525429.trn

CM 3

CRN 254900-07-7

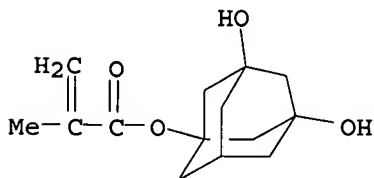
CMF C12 H14 O4



CM 4

CRN 115522-15-1

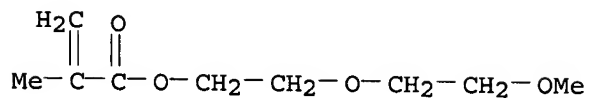
CMF C14 H20 O4



CM 5

CRN 45103-58-0

CMF C9 H16 O4



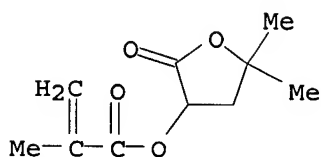
RN 680223-10-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]ethyl ester, polymer with 3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl
2-methyl-2-propenoate, 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl
2-methyl-2-propenoate and tetrahydro-5,5-dimethyl-2-oxo-3-furanyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 280552-09-2

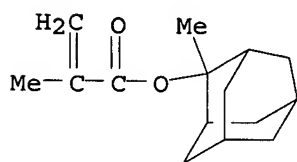
CMF C10 H14 O4



CM 2

CRN 177080-67-0

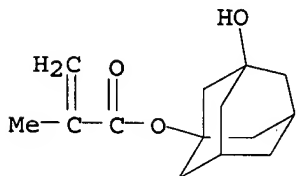
CMF C15 H22 O2



CM 3

CRN 115372-36-6

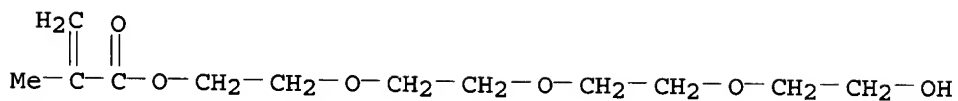
CMF C14 H20 O3



CM 4

CRN 21217-75-4

CMF C12 H22 O6



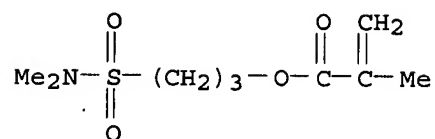
RN 680223-12-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(dimethylamino)sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate, 3-hydroxy-5,7-dimethyltricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

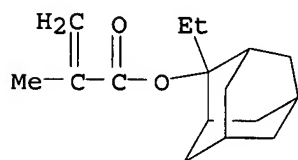
10525429.trn

CRN 680223-11-4
CMF C9 H17 N O4 S



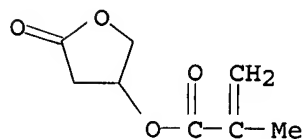
CM 2

CRN 209982-56-9
CMF C16 H24 O2



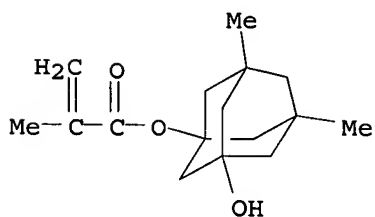
CM 3

CRN 130224-95-2
CMF C8 H10 O4



CM 4

CRN 115522-17-3
CMF C16 H24 O3



RN 683810-47-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl

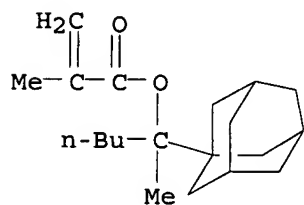
10525429.trn

ester, polymer with 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylpentyl
2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl
2-propenoate and α -(1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-
ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 615567-26-5

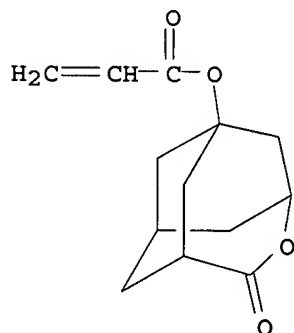
CMF C20 H32 O2



CM 2

CRN 265999-35-7

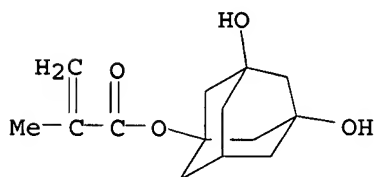
CMF C13 H16 O4



CM 3

CRN 115522-15-1

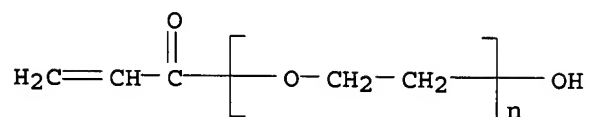
CMF C14 H20 O4



CM 4

10525429.trn

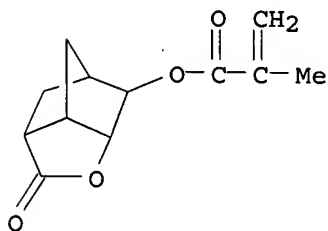
CRN 26403-58-7
CMF (C2 H4 O)n C3 H4 O2
CCI PMS



RN	690663-95-7	HCAPLUS
CN	2-Propenoic acid, 2-methyl-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-ethanediyl), 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate and 3,5,7-trihydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)	

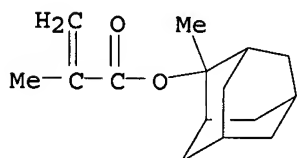
CM 1

CRN 254900-07-7
CMF C12 H14 O4



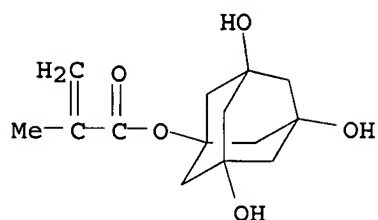
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 115522-16-2
CMF C14 H20 O5

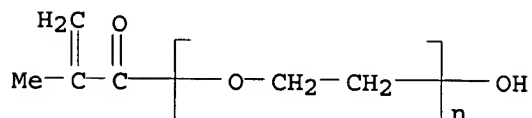


CM 4

CRN 25736-86-1

CMF (C2 H4 O)_n C4 H6 O2

CCI PMS



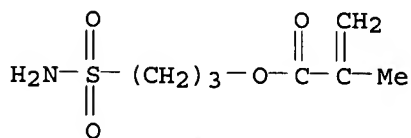
RN 690663-96-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(aminosulfonyl)propyl ester, polymer with
 3,5-dihydroxytricyclo[3.3.1.1.3,7]dec-1-yl 2-methyl-2-propenoate,
 2-ethyltricyclo[3.3.1.1.3,7]dec-2-yl 2-methyl-2-propenoate and
 7-oxo-6-oxabicyclo[3.2.1]oct-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX
 NAME)

CM 1

CRN 483364-49-4

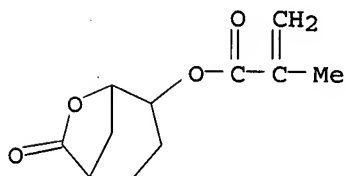
CMF C7 H13 N O4 S



CM 2

CRN 335163-70-7

CMF C11 H14 O4

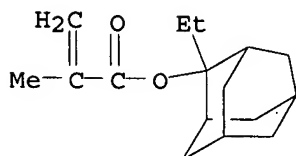


10525429.trn

CM 3

CRN 209982-56-9

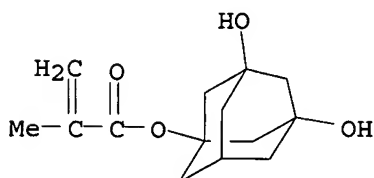
CMF C16 H24 O2



CM 4

CRN 115522-15-1

CMF C14 H20 O4



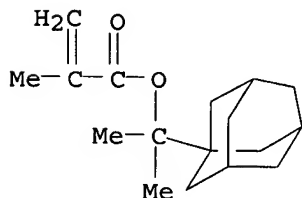
RN 690663-97-9 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 3,5-dihydroxytricyclo[3.3.1.1.3,7]dec-1-yl
2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl
2-methyl-2-propenoate, 1-methyl-1-tricyclo[3.3.1.1.3,7]dec-1-ylethyl
2-methyl-2-propenoate and 5-oxo-4-oxatricyclo[4.3.1.1.3,8]undec-1-yl
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 279218-76-7

CMF C17 H26 O2

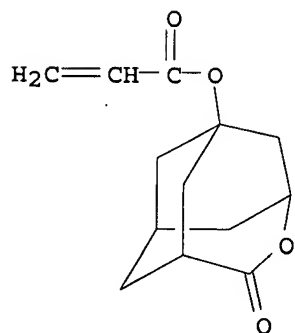


CM 2

CRN 265999-35-7

CMF C13 H16 O4

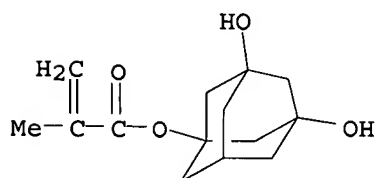
10525429.trn



CM 3

CRN 115522-15-1

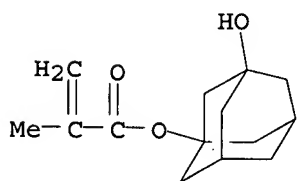
CMF C14 H20 O4



CM 4

CRN 115372-36-6

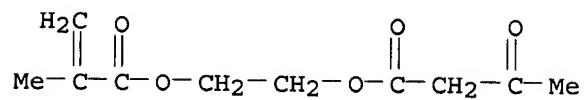
CMF C14 H20 O3



CM 5

CRN 21282-97-3

CMF C10 H14 O5



10525429.trn

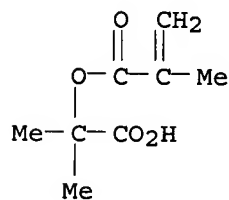
RN 690663-99-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-carboxy-1-methylethyl ester, polymer with 3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate, 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 690663-98-0

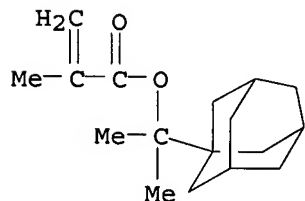
CMF C8 H12 O4



CM 2

CRN 279218-76-7

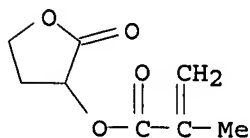
CMF C17 H26 O2



CM 3

CRN 195000-66-9

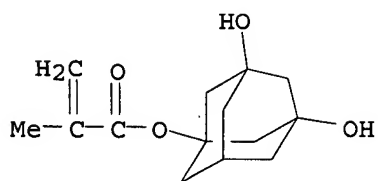
CMF C8 H10 O4



CM 4

CRN 115522-15-1

CMF C14 H20 O4



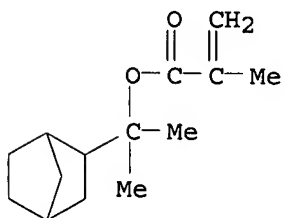
RN 690664-16-5 HCAPLUS

CN Butanedioic acid, mono[1-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]
 ester, polymer with 1-bicyclo[2.2.1]hept-2-yl-1-methylethyl
 2-methyl-2-propenoate, 3,5-dihydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl
 2-methyl-2-propenoate, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-
 yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 342014-18-0

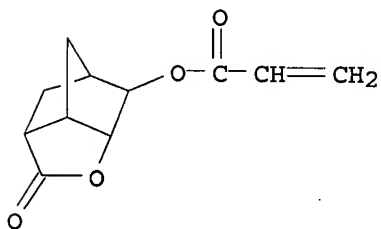
CMF C14 H22 O2



CM 2

CRN 242129-35-7

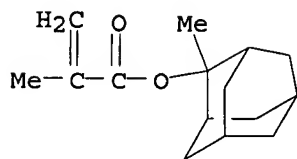
CMF C11 H12 O4



CM 3

CRN 177080-67-0

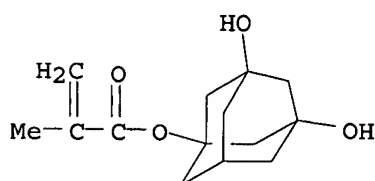
CMF C15 H22 O2



CM 4

CRN 115522-15-1

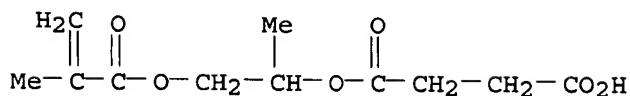
CMF C14 H20 O4



CM 5

CRN 23128-79-2

CMF C11 H16 O6



L29 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:26268 HCAPLUS

DOCUMENT NUMBER: 136:93497

TITLE: Positive-working photoresist layers consisting of two resist layers for semiconductor device fabrication

INVENTOR(S): Yasunami, Shoichiro; Sato, Kenichiro; Mizutani, Kazuyoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002006494	A	2002-04-09	JP 2000-188051	20000622
PRIORITY APPLN. INFO.:			JP 2000-188051	20000622

AB The title photoresist layers consist of a first resist layer and a second resist layer on a substrate, wherein the first resist layer contains a polymer having repeating unit [-CH2-C(Y1)(COO-(L1)al-J)] or

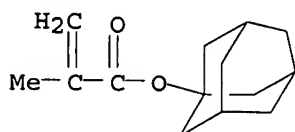
$[-CH_2-C(Y_2)((COO)a_2-(L_2)a_3-K)]$ ($Y_{1-2} = H, \text{ alkyl, cyano, halo};$
 $L_{1-2} = 2\text{-valent connecting group}; J = \text{alicyclic hydrocarbon}; K = \text{aryl}; a_{1-3}$
 $= 0, 1$) and wherein the second resist layer contains a polysiloxane or a
 polysilsesquioxane increasing the solubility in an alkali developer by reacting
 with an acid. The resist layers, which contains the aforementioned resins
 in the each resist layers, provide the improved resolution using far UV
 exposure light.

IT 16887-36-8P, 1-(Methacryloyloxy)adamantane

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (resin in pos.-working photoresist layers)

RN 16887-36-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, tricyclo[3.3.1.1^{3,7}]dec-1-yl ester (CA INDEX
 NAME)



IT 383199-55-1P, p-Hydroxystyrene- 1-(Methacryloyloxy)
 adamantane copolymer 383199-58-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (resin in pos.-working photoresist layers)

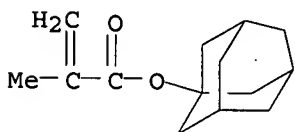
RN 383199-55-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, tricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer
 with 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 16887-36-8

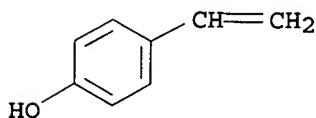
CMF C14 H20 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



RN 383199-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with

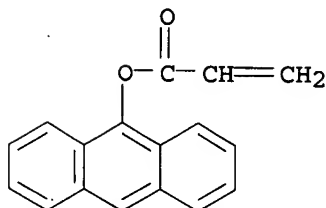
10525429.trn

9-anthracenyl 2-propenoate and tricyclo[3.3.1.1^{3,7}]dec-1-yl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 19090-98-3

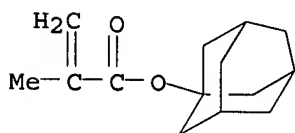
CMF C17 H12 O2



CM 2

CRN 16887-36-8

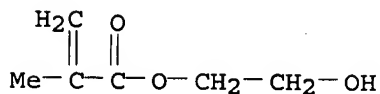
CMF C14 H20 O2



CM 3

CRN 868-77-9

CMF C6 H10 O3



L29 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:932743 HCAPLUS

DOCUMENT NUMBER: 136:77249

TITLE: Positive-working two-layered photoresist

INVENTOR(S): Yasunami, Shoichiro; Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

04/15/2007

Page 70

JP 2001356484	A	20011226	JP 2000-178538	20000614
US 2002028409	A1	20020307	US 2001-880030	20010614
US 6696219	B2	20040224		

PRIORITY APPLN. INFO.:

JP 2000-178538 A 20000614

AB The title photoresist has a heat-curable first resist layer and a second resist layer on a substrate, wherein the first resist layer contains polymer having repeating unit $[-CH_2-C(Y_1)(COO(L_1)a_1-J)-]$ ($Y_1 = H, \text{ alkyl, cyano, halo}$; $L_1 = 2\text{-valent connecting group}$; $J = \text{alicyclic hydrocarbon}$; $a_1 = 0, 1$) and $[-CH_2-C(Y_2)((COO)a_2-(L_2)a_3-K)-]$ ($Y_2 = H, \text{ alkyl, cyano, halo}$; $L_2 = 2\text{-valent connecting group}$; $K = \text{aryl}$; $a_2\text{-}3 = 0, 1$) and wherein the second resist layer contains a water insol. polymer, which has Si in the side chain, becoming alkali soluble by reacting with an acid and a light- or radiation-sensitive acid generator. The photoresist, which has the aforementioned first and second photoresist layers, is suitable for use with far-UV light and provides the high resolution pattern.

IT 383199-58-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymer in first resist layer of two-layered photoresist)

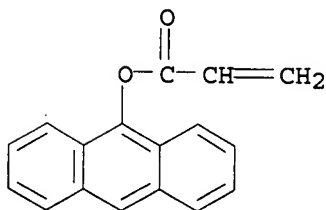
RN 383199-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 9-anthracenyl 2-propenoate and tricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 19090-98-3

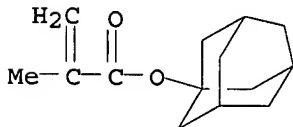
CMF C17 H12 O2



CM 2

CRN 16887-36-8

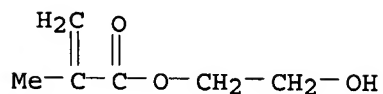
CMF C14 H20 O2



CM 3

CRN 868-77-9

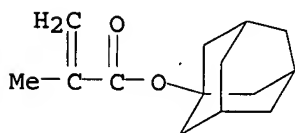
CMF C6 H10 O3



IT 383199-55-1P, 1-(Methacryloyloxy)adamantane
 -p-hydroxystyrene copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (resin in first resist layer of pos.-working two-layered photoresist)
 RN 383199-55-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, tricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer
 with 4-ethenylphenol (9CI) (CA INDEX NAME)

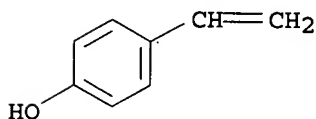
CM 1

CRN 16887-36-8
 CMF C14 H20 O2

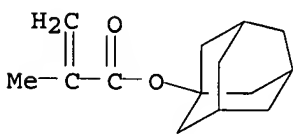


CM 2

CRN 2628-17-3
 CMF C8 H8 O



IT 16887-36-8P, 1-(Methacryloyloxy)adamantane
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (resin monomer in first resist layer of pos.-working two-layered
 photoresist)
 RN 16887-36-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, tricyclo[3.3.1.1^{3,7}]dec-1-yl ester (CA INDEX
 NAME)



L29 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:212863 HCAPLUS

DOCUMENT NUMBER: 130:274094

TITLE: Far ultraviolet sensitive positive-working photoresist composition, method of pattern forming using same, and fabrication of semiconductor device using same

INVENTOR(S): Asakawa, Koji; Kihara, Naoko; Shinoda, Naomi; Gokochi, Toru; Okino, Takeshi; Nakase, Makoto; Naito, Takuya; Saito, Satoshi

PATENT ASSIGNEE(S): Toshiba Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

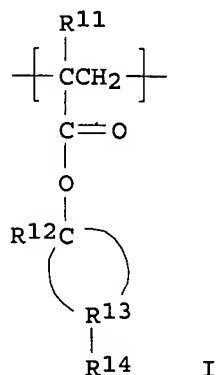
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11084663	A	19990326	JP 1997-366051	19971224
JP 3431481	B2	20030728		
US 6280897	B1	20010828	US 1997-997623	19971223
PRIORITY APPLN. INFO.:			JP 1996-344037	A 19961224
			JP 1997-8819	A 19970121
			JP 1997-189929	A 19970715

GI



AB The pos.-working photoresist composition contains an agent generating acid upon irradiation with light and a polymer having repeating unit I (R11 H, alkoxy, halo, cyano; R12 = aliphatic hydrocarbon, cyclic olefin; R13 = C2-12 straight chain olefin, cyclic olefin, heterocyclic group, hydrocarbon; R14 = hydrophilic group). The composition provides a photoresist having excellent transmittance towards far UV, the high alkali solubility, the excellent adhesion with a substrate, and the excellent dry-etching resistance.

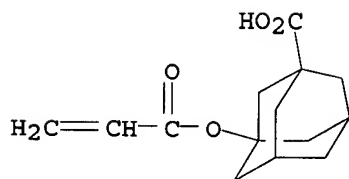
IT 124889-09-4P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(far UV sensitive pos.-working photoresist composition)

RN 124889-09-4 HCAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxylic acid, 3-[(1-oxo-2-propenyl)oxy]-(9CI) (CA INDEX NAME)

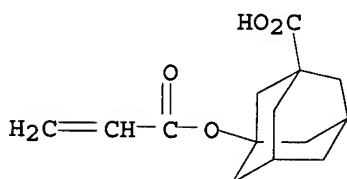


IT 222176-75-2P 222191-69-7P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymer for far UV sensitive pos.-working photoresist composition)
 RN 222176-75-2 HCAPLUS
 CN Tricyclo[3.3.1.1.3,7]decane-1-carboxylic acid, 3-[(1-oxo-2-propenyl)oxy]-, polymer with butyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 124889-09-4

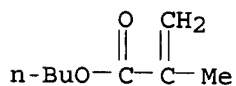
CMF C14 H18 O4



CM 2

CRN 97-88-1

CMF C8 H14 O2



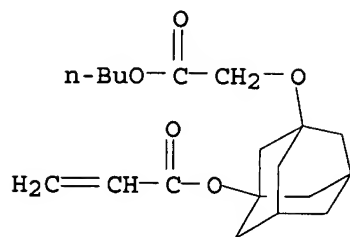
RN 222191-69-7 HCAPLUS
 CN 1,2-Cyclohexanedicarboxylic acid, mono[3-[(1-oxo-2-propenyl)oxy]tricyclo[3.3.1.1.3,7]dec-1-yl] ester, polymer with 3-(2-butoxy-2-oxoethoxy)tricyclo[3.3.1.1.3,7]dec-1-yl 2-propenoate and ethenylnaphthalene (9CI) (CA INDEX NAME)

CM 1

CRN 222191-68-6

CMF C19 H28 O5

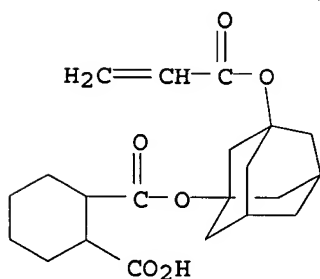
10525429.trn



CM 2

CRN 222191-67-5

CMF C21 H28 O6

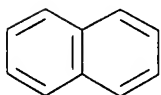


CM 3

CRN 26588-32-9

CMF C12 H10

CCI IDS



D1-CH=CH₂

L29 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:178718 HCAPLUS

DOCUMENT NUMBER: 126:173016

TITLE: Copolymers having adamantyl and dye side chains

INVENTOR(S): Beckmann, Stefan; Etzbach, Karl-Heinz; Sens, Ruediger

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Ger. Offen., 30 pp.

CODEN: GWXXBX

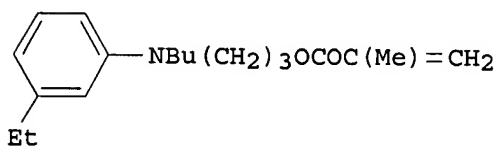
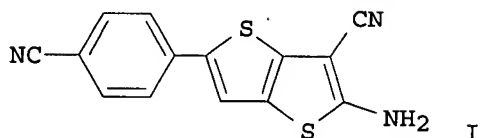
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19525304	A1	19970116	DE 1995-19525304	19950712
EP 754709	A1	19970122	EP 1996-110715	19960703
R: DE, FR, NL				
JP 09100325	A	19970415	JP 1996-183635	19960712
PRIORITY APPLN. INFO.: GI			DE 1995-19525304	A 19950712



AB Polymers are prepared having units of (meth)acrylate derivs. of dyes 1-99, (meth)acrylate derivs. of adamantane 1-99, and other monomers 0-90 mol% and are useful in nonlinear optics. Thus, coupling the diazotized amine I with the methacrylate II gave a dye, that was free-radical polymerized (10%) with 90% adamantyl methacrylate to give polymer with weight-average mol. weight 85,060.

IT 187240-88-6P 187240-89-7P 187240-90-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (copolymers having adamantyl and dye side chains)

RN 187240-88-6 HCAPLUS

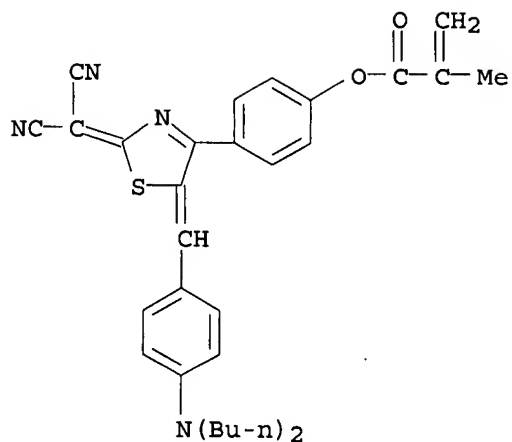
CN 2-Propenoic acid, 2-methyl-, 4-[5-[[4-(dibutylamino)phenyl]methylene]-2-(dicyanomethylene)-2,5-dihydro-4-thiazolyl]phenyl ester, polymer with tricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 187240-84-2

CMF C31 H32 N4 O2 S

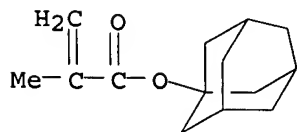
10525429.trn



CM 2

CRN 16887-36-8

CMF C14 H20 O2



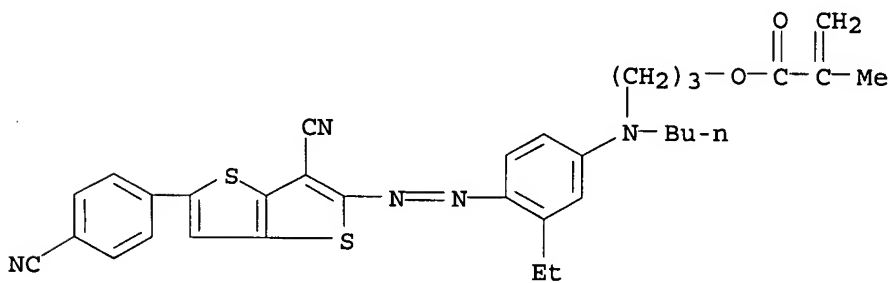
RN 187240-89-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[butyl[4-[[3-cyano-5-(4-cyanophenyl)thieno[3,2-b]thien-2-yl]azo]-3-ethylphenyl]amino]propyl ester, polymer with tricyclo[3.3.1.3⁰]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 187240-79-5

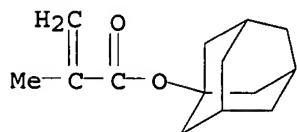
CMF C33 H33 N5 O2 S2



CM 2

10525429.trn

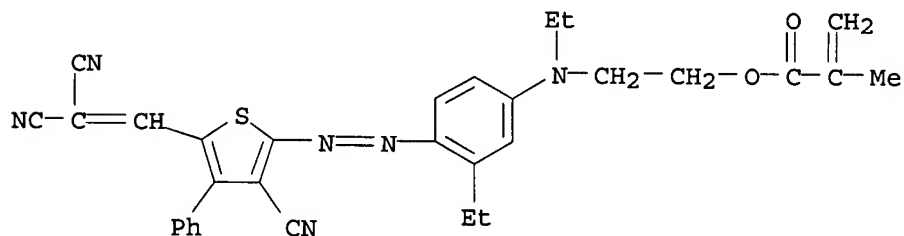
CRN 16887-36-8
CMF C14 H20 O2



RN 187240-90-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[[4-[[3-cyano-5-(2,2-dicyanoethenyl)-4-phenyl-2-thienyl]azo]-3-ethylphenyl]ethylamino]ethyl ester, polymer with tricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

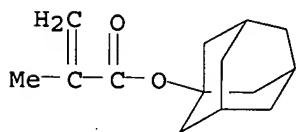
CM 1

CRN 187240-85-3
CMF C31 H28 N6 O2 S



CM 2

CRN 16887-36-8
CMF C14 H20 O2



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COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

SINCE FILE

ENTRY

102.45

SINCE FILE

ENTRY

-11.70

TOTAL

SESSION

1195.15

TOTAL

SESSION

-19.50

STN INTERNATIONAL LOGOFF AT 12:53:41 ON 15 APR 2007